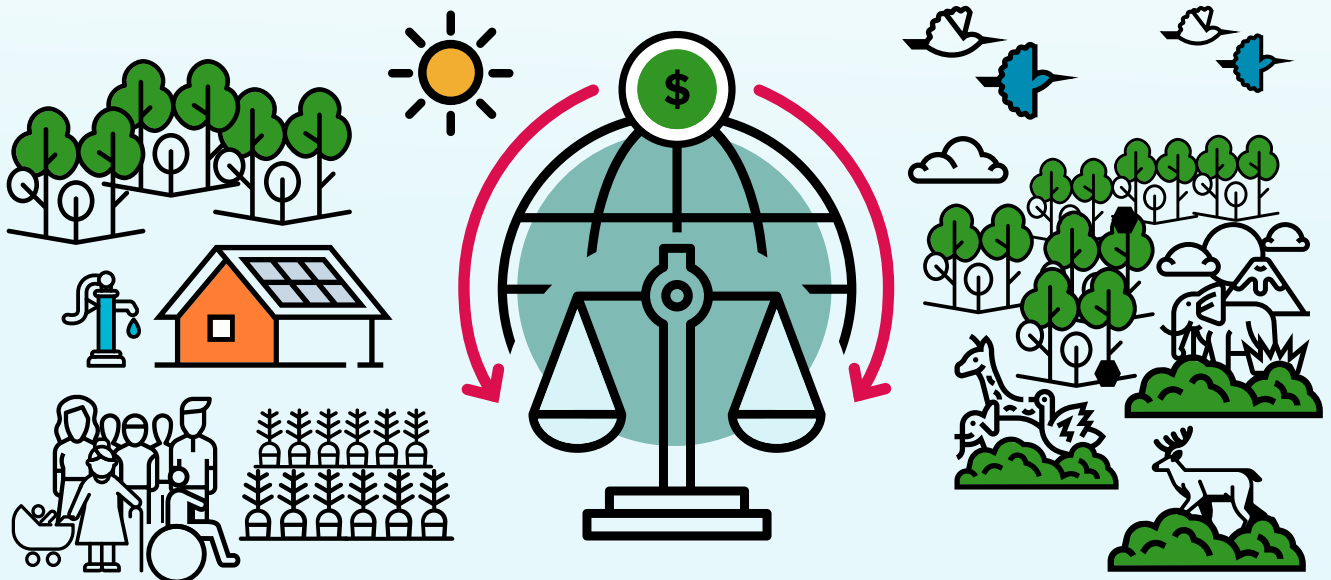
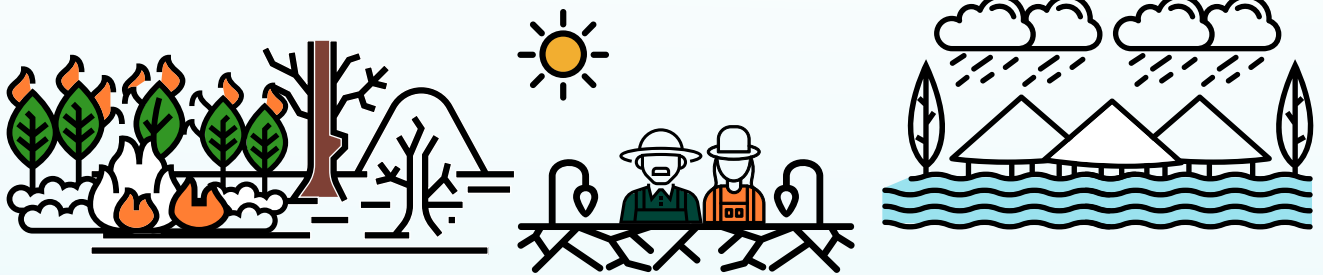
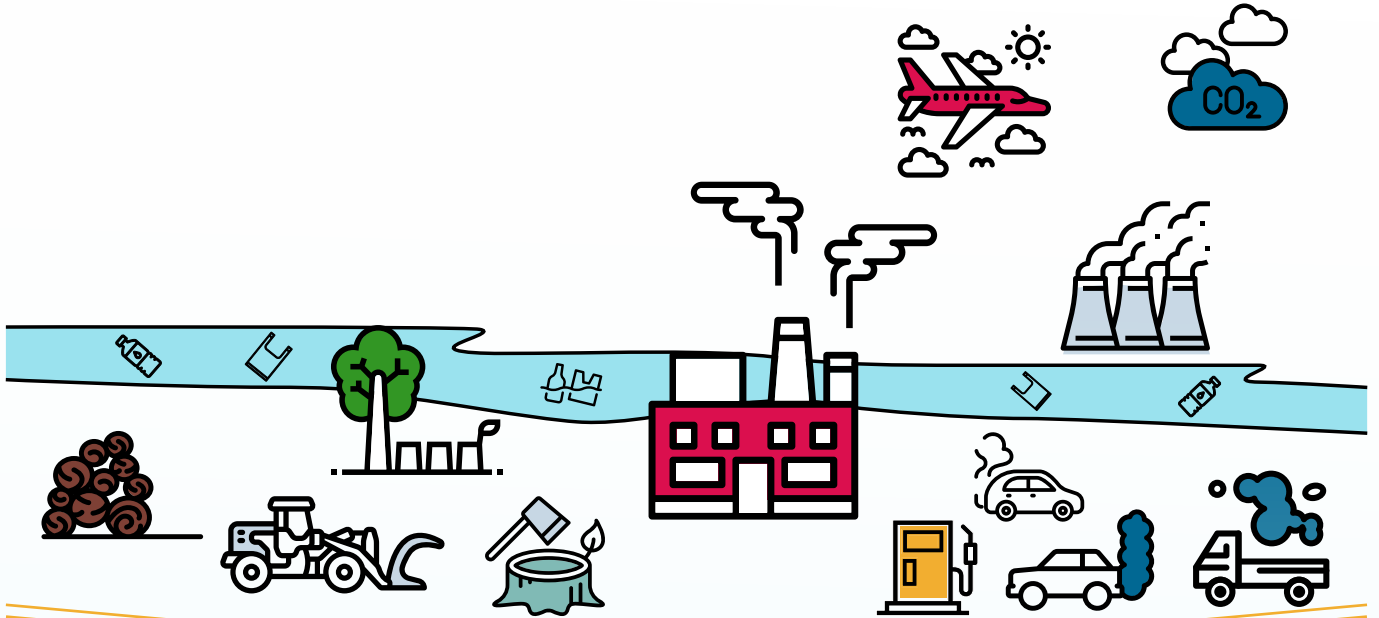


Practical Action for Addressing Loss and Damage



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Acronyms

AAP	Anticipatory Action Plan
AO	Advisory Opinion
AOSIS	Alliance Of Small Island States
ARC	African Risk Capacity
ASALs	Arid and Semi-Arid Lands
CBF	Climate Bridge Fund
CCCF	County Climate Change Funds
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CECG	Climate Emergency Collaboration Group
CIFF	Children’s Investment Fund Foundation
CJRF	Climate Justice Resilience Fund
COP	Conference of Parties of the UN Framework Convention on Climate Change
COSIS	Commission of Small Island States for Climate Change and International Law
CVF	Climate Vulnerable Forum
DCF	Devolved Climate Finance
DIE	Deutsches Institut für Entwicklungspolitik
DKK	Danish Kroner
DSSI	Debt Service Suspension Initiative
E3G	Third Generation Environmentalism
ECF	European Climate Foundation
EM-DAT	Emergency Events Database
ESG	Environmental, Social and Governance
ETS	Emissions Trading Scheme
EU	European Union
EWS	Early Warning System
FONDEN	Fondo para el Desarrollo Nacional
GCF	Green Climate Fund
GCU	Glasgow Caledonian University

GEF	Global Environment Facility
GGF	Global Greengrants Fund
GHGs	Greenhouse Gases
GRP	Global Resilience Partnership
GST	Global Stocktake
HIA	Human Impact Assessment
IBFI	Index Based Flood Insurance
ICCCAD	International Centre for Climate Change and Development
ICJ	International Court of Justice
IGES	Institute for Global Environmental Strategies
IIED	International Institute for Environment and Development
IMF	International Monetary Fund
INGC	Instituto Nacional de Gestão de Calamidades
IPCC	Intergovernmental Panel on Climate Change
KfW	German investment bank
LDCs	Least Developed Countries
LDYC	Loss and Damage Youth Coalition
LGBTQI	Lesbian, Gay, Bisexual, Transgender, Questioning and Intersex
MDB	Multilateral Development Bank
MEA	Millennium Ecosystem Assessment
MEL	Monitoring, Evaluation and Learning
MRCCJ	Mary Robinson Centre for Climate Justice
NCQG	New Collective Quantified Goal on Climate Finance
NDC	Nationally Determined Contribution
NDMA	National Drought Management Authority (Kenya)
NGOs	Non-Governmental Organisations
NbS	Nature-based Solutions
OBNEs	Organisations, Bodies, Networks and Experts
ODI	Overseas Development Institute
OECD-DAC	Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee

OSF	Open Society Foundation
PCVA	Participatory Capacity and Vulnerability Analysis
PDNA	Post-Disaster Needs Assessment
PERC	Post Event Review Capacity
PSNP	Productive Safety Net Programme
RST	Resilience and Sustainability Trust of the IMF
SCIAF	Scottish Catholic International Aid Fund
SDGs	Sustainable Development Goals
SDRs	Special Drawing Rights
SEI	Stockholm Environment Institute
SIDS	Small Island Developing States
SIPE	Satellite Index Insurance for Pastoralists in Ethiopia
SNLD	Santiago Network for Loss and Damage
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNHCR	United Nations High Commissioner for Refugees
USD	United States Dollar
UUSC	Unitarian Universalist Service Committee
WATSAN	Water and sanitation
WFP	World Food Programme
WSC	Water Safe Cities
WWF	World Wildlife Fund
YPSA	Young Power in Social Action

First Minister's Foreword

When Scotland held the conference *Addressing Loss and Damage: Practical Action* in October 2022, we looked ahead to COP27 in certainty of the need for international action on loss and damage, but with some doubt as to how much COP27 would deliver. Now, with the decision in Sharm el Sheikh to establish a UNFCCC Loss and Damage Fund, the landscape looks far more positive.

COP27 marked a turning point for Loss and Damage, with progress on operationalising the Santiago Network accompanying the headline fund decision. Alongside commitments from Belgium, Canada, France, Germany, Ireland and New Zealand, I was delighted to announce a further £5 million of support for loss and damage from the Scottish Government's Climate Justice Fund – building on the £2 million I announced at COP26. This £5 million will be directed toward non-economic loss and damage from both sudden and slow onset events, in recognition of this specific but not well understood need.

The work to operationalise the UNFCCC fund and mobilise the huge volume of finance that is needed from a mosaic of funding sources is just beginning. The next step is for funders, practitioners and impacted communities to identify the most impactful ways to deploy the resources countries have agreed to, in order to deliver practical action that improves people's lives.

The conference held in October 2022 by the Scottish Government in collaboration with the UN Climate Change High Level Champions and Global Resilience Partnership, brought together international representatives and practitioners to articulate best practice and explore innovative opportunities to address and finance loss and damage. Contributors presented more than 30 case studies of action already being taken.

Nicola Sturgeon
First Minister
of Scotland



This report draws together the evidence presented in those case studies to explore some of the key issues faced by communities, governments, donors, the private sector and others working to address inescapable climate impacts in their regions, countries and systems. It sets this evidence within the post-COP27 landscape and provides an analysis of the available funding for different types of action. Finally, it proposes a set of ten key insights for consideration by those taking action to address loss and damage.

These insights are, for me, the centre of this report. The impacts of climate change are increasing in intensity, leading to devastating infrastructure damages, huge financial losses and profound non-economic costs. Communities on the front line of the crisis who have contributed the least to the problem suffer first and worst. To succeed for these communities, loss and damage action must be guided by shared principles and funding must meet benchmarks in quality as well as volume.

After 30 years of relentless campaigning by actors from the Global South, COP27 delivered a first victory. I hope this report helps to build upon that victory by accelerating both finance and action for loss and damage, and informing how it can be best deployed.

Executive Summary

Devastating loss and damage¹ due to the adverse effects of climate change include human casualties, economic and non-economic impacts on livelihoods and wellbeing, forced displacement and loss of cultural heritage. The Sixth Assessment report of the Inter-governmental Panel on Climate Change (IPCC) provides scientific evidence of the scale and severity of climate change impacts which are causing loss and damage across every region of the world.² These losses and damages are happening now and are forecast to increase in severity and frequency as global temperatures rise.

At COP27 in Egypt, 2022, Parties agreed to establish a fund for Loss and Damage as part of broader funding arrangements, or “mosaic of solutions”, both inside and outwith the UNFCCC. Some initial funding has been pledged for addressing loss and damage, as summarised in Table 1, though this is a fraction of the scale of finance required. There are different estimates of the finance needed by developing countries each year to address losses and damages. These estimates are orders of magnitude above what is currently available and well above the USD 100bn per annum agreed (but yet to be fully realised) under the UNFCCC for climate mitigation and adaptation.

This report analyses issues of finance, needs assessment and delivery of interventions, and synthesises evidence from examples of practical action from a broad spectrum of actors working on loss and damage. It considers how to mobilise the vast scale of finance necessary to address escalating needs and deliver the array of actions required. The

purpose is to increase shared understanding and to guide the urgent actions needed to scale up finance for and deliver interventions to address loss and damage. There is a particular focus on the intersectional and gendered aspects of economic and non-economic loss and damage, so as to reflect the disproportionate impact of climate change on women and girls.

This report does not represent the views of the Scottish Government. Rather it brings together a range of experiences and analyses to inform and guide practical action for addressing loss and damage. The discussion and recommendations presented in this report are relevant to the work of the newly established Transitional Committee on the operationalisation of the new funding arrangements for Loss and Damage under the UNFCCC. As agreed at COP27, the Transitional Committee will make recommendations on the new funding arrangements for assisting developing countries that are particularly vulnerable to the adverse effects of climate change.

The Transitional Committee has been tasked with accessing information on the institutional landscape, gaps therein, prioritisation of solutions, effective ways to address for the most vulnerable, and sources of (innovative) funding. From the evidence provided, the following findings may be of particular relevance:

- i. Measures to directly address loss and damage are in their infancy and coverage is negligible as compared to need, notwithstanding the measures that those facing loss and damage are taking autonomously.

1 In this report we use Loss and Damage (upper case) to refer to UNFCCC decisions and processes; loss and damage (lower case) as the proper noun for the wider phenomenon; and losses and damages (pluralised) for what has been experienced and is happening in terms of observed impacts and projected risks from climate change.

2 IPCC Sixth Assessment Report, <https://www.ipcc.ch/assessment-report/ar6/>



Cyclone Aftermath in Vietnam. Credit: Action Aid

- ii. National policy frameworks and local to national mechanisms will be central to creating an enabling environment for addressing loss and damage.
 - iii. Knowledge and national level experiences in disaster risk reduction, response and recovery, and adaptive social protection provide a good basis for developing effective measures that incorporate loss and damage. Similarly, knowledge on risk transfer and insurance, nature-based solutions, and livelihoods rehabilitation following external shocks can be adopted and adapted to address loss and damage.
 - iv. Measures to manage internal and cross border migration, assisted relocation and providing support to people and households straddling origin and destination locations need to be developed for people displaced by climate change.
 - v. Addressing non-economic loss and damage is a gap across all types of climate impacts and current responses. Yet these impacts are ubiquitous, especially in marginalised and impoverished communities. Different approaches need to be developed to those that have focused on economic costs, and could include market-driven, technological solutions.
 - vi. Vulnerability-focused, gender-responsive and transformative, and intersectionally-conscious measures are needed if loss and damages are not to impact large sections of society disproportionately.
- An analysis of ways to address loss and damage is presented in Section 5, which demonstrates how important national mechanisms are and will continue to be in drawing down finance from the UNFCCC Loss and Damage Fund once established.

These agencies should be able to assess needs, design interventions, coordinate implementation, and manage the monitoring, evaluation, reporting and learning processes. The mapping draws attention to how the role of sub-national authorities would benefit from being enhanced to take on delegated mandates from national government, in order to facilitate bottom-up local to national ways of addressing loss and damage.

Both national and sub-national components of the loss and damage landscape rely on the capacity to successfully govern a complex, vulnerability-focused and largely social process. Civil society organisations are involved in fostering local collective action for ecosystem-based measures, achieving resiliency through livelihoods rehabilitation and curative measures. They may also act as a more direct recipient of some forms of finance mobilised outside the UNFCCC.

Section 6 proposes 10 insights on good practice, including on mobilising finance, assessing needs and delivering loss and damage interventions. These were deliberated through a multi-stakeholder process and have been widely consulted upon. The insights proposed are: urgency of action; being equitable and targeted; responsive to context; adequate to meet real need; accessible to all; historical responsibility and polluter pays; creative communication and shared learning; transparency and accountability; far-sighted and do no harm; and no additional indebtedness.

Several practical solutions are presented which draw on case studies and secondary literature related to mobilising public sector finance, exploring innovative finance, and pioneering work on determining needs and delivering actions. These include actions around Mobilising public sector finance for addressing loss and damage; Innovative finance for addressing loss and damage; Determining needs; and Delivering actions.

The task of comprehensively addressing loss and damage, and putting right the climate injustice it represents requires a scale of funding that far exceeds the USD 100 billion that was previously pledged for climate mitigation and adaptation through the UNFCCC.

Concurrent work is required at different levels. At the global level, the finance system reforms set out by Prime Minister Mottley of Barbados in her address to the seventy-seventh session of the UN General Assembly³ are critical to release the trillions of dollars needed to comprehensively address loss and damage. Sovereign debt and fiscal flexibility for climate vulnerable countries requires debt management through restructuring, cancellation where possible and innovative mechanisms such as debt for climate swaps. The important COP27 decision to establish a global Loss and Damage Fund for the most vulnerable countries demands to be implemented in full and with urgency.

At the national level, countries need to review their institutional frameworks and mandates for addressing loss and damage. Then, national mechanisms to interface with and link to global finance can be established. National mechanisms will vary according to context and will need to be integrated into existing institutional structures for climate action, disaster risk reduction and management, social protection and development planning.

At the local level on the climate frontline, ways to address loss and damage that focus on the most vulnerable are needed. It is especially necessary to develop gender-responsive and intersectional approaches to assess and address both non-economic and economic loss and damage that take account of the differentiated impacts on women and girls from slow and sudden onset events.

3 <https://news.un.org/en/story/2022/09/1127611>

1 Introduction

The purpose of this report is to increase shared understanding and to provide guidance for mobilising funds and taking the urgent actions needed to address loss and damage. This report synthesises examples of practical action and analyses key issues for addressing loss and damage. It considers mobilising finance from conventional public and innovative sources, as well as emerging approaches to assessing needs and delivering actions. The report also focuses on the intersectional and gendered aspects of economic and non-economic loss and damage. These actions are necessary now because climate change impacts and risks are affecting most those who have done least to cause them.

The COP27 decision to establish a Loss and Damage Fund and to establish a Transitional Committee under the UNFCCC⁴ was widely welcomed. The evidence presented here is relevant to the work of the Transitional Committee in developing recommendations to carry forward the decision made at COP27 to establish new funding arrangements for assisting developing countries that are particularly vulnerable to the adverse effects of climate change.⁵

In October 2022, the Scottish Government with the UN Climate Change High Level Champions and the Global Resilience Partnership (GRP) convened a Loss and Damage Conference⁶ in Edinburgh, Scotland, to share learning and approaches. At the Conference delegates from all over the world contributed expertise and evidence in lively and positive discussions.

During the Conference Scotland's First Minister Nicola Sturgeon pointed out the impossibility of upholding human rights without addressing loss and damage. Chair of the Elders, Mary Robinson, has stated that human rights should be at the very centre of climate change discussions.⁷ And E3G have referred to the "moral blight" of unaddressed loss and damage.⁸ So, the global system now must rise to the challenge of addressing the global public "bad" that is loss and damage.

The Conference raised the need to act urgently to mobilise and channel finance to where it is needed. Conference participants discussed that climate finance for loss and damage should be new, additional, adequate and sustainable to meet new, additional and escalating needs. Some participants emphasised the importance of grant-based finance being made available to address loss and damage in the most vulnerable countries (least developed countries and small island developing states), so it is not burdensome nor creates further indebtedness for recipient countries and communities.

The Conference also discussed how finance for loss and damage could come from a wide range of sources and support a mosaic of solutions, but that a public finance floor is required to ensure that the needs of the most vulnerable are covered.

A summary report of the Conference proceedings was launched at COP27.⁹ This report builds upon the summary report, presenting further case study evidence and

4 [COP27_AUV_2 \(unfccc.int\)](https://unfccc.int)

5 <https://unfccc.int/documents/624440>

6 Referred to from here on as the 'Conference'.

7 <https://www.mrfcj.org/principles-of-climate-justice/respect-and-protect-human-rights/>

8 <https://www.e3g.org/publications/roadmap-for-progressing-on-loss-and-damage/>

9 <https://www.gov.scot/publications/addressing-loss-damage-practical-action-summary-report-scottish-governments-conference-loss-damage/>

additional analysis for policy and action which can be used to inform decisions on how to take forward the outcomes from COP27 related to Loss and Damage. The report does not represent the views of the Scottish Government. Rather it brings together a range of experiences and analyses to inform and guide practical action for addressing loss and damage.

1.1 Defining loss and damage

Loss and damage includes devastating economic and non-economic losses, including forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities. The Intergovernmental Panel on Climate Change (IPCC) Working Groups II and III and the IPCC's Sixth Assessment Report¹⁰ provide scientific evidence of the scale and severity of impacts and risks of losses and damages.

Definition of what addressing loss and damage is (and is not) helps to assess and map the landscape of relevant actions. This is discussed in Section 5 of this report on Landscape Analysis. The definition provided by Mace and Verheyen¹¹ has gained recognition as it separates out climate adaptation from addressing loss and damage. They state that *“Addressing loss and damage ... refers to actions dealing with the residual, adverse impacts of climate change which remain after mitigation and adaptation measures have been adopted.”* This definition in large part

concur with the mitigation/adaptation/loss and damage continuum developed by Julie-Anne Richards.¹² The continuum of actions is discussed in Section 3.2.2 on Delivering Actions. Implicit in these definitions is that residual adverse impacts result where climate adaptation is, not implemented, or when adaptation implementation is not effective in minimising risks and impacts. The less effective adaptation is, the greater the likelihood of losses and damages occurring. This is the technical part of what is referred to as the “adaptation gap”.¹³

Loss and damage measures address impacts that have happened, or are expected to materialise. Actions to address loss and damage are not expected to prevent these impacts altogether.

A coherent national policy framework is key to providing an effective enabling environment for addressing loss and damage.¹⁴ The Nepal framework on Climate Change Induced Loss and Damage¹⁵ published in October 2021 is the first example of a national framework anywhere. The inclusion of loss and damage in the Vanuatu Revised and Enhanced 1st National Determined Contribution (2021-2030)¹⁶ also sets a great precedent in identifying actions to address loss and damage at a country level (see case study 2). This report seeks to provide relevant practical lessons on ways to address loss and damage that are coherent with these and other emerging policy frameworks.

10 IPCC Sixth Assessment Report: <https://www.ipcc.ch/assessment-report/ar6/>

11 Mace and Verheyen, 2016

12 <https://www.lossanddamagecollaboration.org/stories-op/how-does-loss-and-damage-intersect-with-climate-change-adaptation-drr-and-humanitarian-assistance>

13 The adaptation gap is the difference between actually implemented adaptation and a goal set by society, determined largely by preferences related to climate change impacts, and reflecting resource limitations and competing priorities <https://wasp-adaptation.org/collaborative-partnerships/adaptation-gap-report>

14 Wallimann-Helmer, et al (2018) show that policy priorities vary. The “beyond adaptation” approach is where different impacts can be avoided or will be avoided by appropriate measures without any assessment by those facing potential loss and damage; and the “risk tolerance” approach, is where fostering collective decision-making and capacity building to assess climate risks is prioritised.

15 <https://www.climatenepal.org.np/resources/national-framework-climate-change-induced-loss-and-damage-ld>

16 <https://unfccc.int/sites/default/files/NDC/2022-08/Vanuatu%20NDC%20Revised%20and%20Enhanced.pdf>



The aftermath of Cyclone Idai in Mozambique. Credit: Denis Onyodi/IFRC/DRK/Climate Centre, via Flickr, CC BY-NC 2.0

1.2 Loss and damage decisions and outcomes at COP27

Grave concerns have been expressed by all Parties¹⁷ to the UNFCCC on the growing gravity, scope and frequency in all regions of loss and damage associated with the adverse effects of climate change, and regarding the adequacy and effectiveness of responses that are now necessary.¹⁸

The G77 plus China (a large negotiating group of the most climate vulnerable countries)¹⁹ proposed that finance for loss and damage be a sub-agenda item under the Finance agenda of COP27. Following provisional acceptance by the COP27 presidency, Parties decided to incorporate finance for loss and damage on the COP agenda for the very first time in Sharm El-Sheikh, with the caveat that it would not be used for liability or compensation.

Terminology in a legal process such as the UNFCCC can be opaque, but this language is important in shaping the actions of the global community and therefore requires careful consideration. Box 1 describes important parts of the terminology on loss and damage in the UNFCCC.

With the agenda item agreed, developing countries and aligned civil society groups demanded a substantial outcome on Loss and Damage at COP27. This was achieved in terms of Parties agreeing to establish a fund on loss and damage as part of broader funding arrangements, or the “mosaic of solutions”, both inside and outwith the UNFCCC. The adopted decision²⁰ under the new agenda item establishes *new funding arrangements* for assisting developing countries; *a fund* for responding to loss and damage whose mandate includes a focus on addressing loss and damage; and, *a transitional committee* to undertake work and make recommendations for the operationalisation of the funding arrangements and the fund.

17 Countries that have ratified the UNFCCC.

18 [Sharm el-Sheikh Implementation Plan | UNFCCC](#)

19 <https://www.g77.org/>

20 “Sharm el-Sheikh Implementation Plan” <https://unfccc.int/documents/624444>

Box 1 Loss and Damage terminology used in UNFCCC decisions

The UNFCCC uses the term “avert” to refer to reducing greenhouse gas emissions and thereby avoiding climate impacts. “Minimise” climate impacts refers to adaptive measures. With regard to measures for loss and damage we can note the differentiation between “responding” – i.e., to react in response. Meanwhile, “addressing” is to deal with a threat and suggests a comprehensive remedy to a harm that has been caused.

The original agenda item proposal from the G77 and China at COP27 referred to “addressing” loss and damage. The agreed agenda item referred to “responding” and added “including a focus on addressing loss and damage”. It is understood by climate negotiators that by “responding” Parties will act in solidarity to assist those suffering loss and damage and offer help – a weakened outcome as compared to the more comprehensive “addressing.”²¹ Developing countries have continually stressed that actions must focus on *addressing* loss and damage. It is positive that, “a focus on addressing” was included in the agenda item, however, it is in the context of “responding” to loss and damage.

There was also agreement on the modalities of operation for the Santiago Network for Loss and Damage (SNLD) and a process decided for selecting the host organisation. Parties decided that the SNLD will have: a hosted secretariat that will facilitate work; an Advisory Board to provide guidance and oversight; and, a network of member organisations, bodies, networks and experts (OBNEs) to include representatives from three recognised UNFCCC constituencies: Women and Gender, Youth, and Indigenous Peoples.

Not all proposals by groups of Parties were successful. Efforts by some to integrate loss and damage into the New Collective Quantified Goal on climate finance (NCQG)²² were unsuccessful.²³

1.3 Structure of the report

Section 1 introduces the report, sets out what loss and damage is considered to be in broad terms and discusses the decisions on Loss and Damage reached at COP27.

Section 2 provides an overview of practical lessons on mobilising public sector finance for loss and damage and innovations in finance provision.

Section 3 looks at assessing loss and damage needs and delivering loss and damage interventions.

Section 4 discusses the key topic of non-economic loss and damage and indicates what needs to be learned in order to address these impacts.

Section 5 discusses the results of a process to map the loss and damage landscape.

Section 6 presents a set of solutions identified from the evidence gathered in the report and proposes a set of insights relevant to mobilising funds and delivering interventions to address loss and damage.

21 “What Happened At COP27 And What Comes Next” https://uploads-ssl.webflow.com/605869242b205050a0579e87/6388a7def333e344ab5f98c3_L%26DC_WHAT%20HAPPENED_AT_COP_27_%26_WHAT_NEXT.pdf

22 <https://unfccc.int/NCQG>

23 Despite loss and damage being included in the second technical dialogue on the Global Stocktake, how it will be included in the final assessment of collective progress towards achieving the global goals of the Paris Agreement is not decided.

2 Mobilising finance for loss and damage

According to a recent report by E3G,²⁴ addressing loss and damage is necessary for sustainable economic development, and rapid disbursement of funds to the people enduring climate shocks can aid recovery of local economies in cost-effective ways. Climate impacts that breach adaptation measures result in chronic economic problems and increased climate vulnerabilities. Climate vulnerable countries need the means to strengthen their economic resilience to shocks, and mobilising finance for addressing loss and damage will be a central part of the solution.

The lessons discussed here consider conventional forms as well as innovative new sources of finance. Case studies are provided to illustrate key points. The relevance of recent proposals for reform of the international finance system including the multilateral development banks (MDBs) to the mobilisation of finance for loss and damage and the fiscal flexibility of climate vulnerable countries is also discussed.

2.1 Mobilising public sector finance for addressing loss and damage

In this sub-section the focus is on issues related to public sector finance, sovereign debt and mobilising finance through the global financial system. Solidarity with climate vulnerable countries can foster trust between countries leading to opportunities for collective climate action. Mobilising loss and damage finance can help to demonstrate the merit of multilateral institutions at a moment when the global geopolitical order is coming under attack.

The case studies included in this sub-section include: *Reform of the MDBs and the Bridgetown Initiative* from Eurodad, *Climate justice must include debt justice* from Jubilee Scotland, *Clarifying loss and damage legal pathways through an International Court of Justice advisory opinion*, and *Loss and Damage in Nationally Determined Contributions to the Paris Agreement* from the Government of the Republic of Vanuatu, and *Roadmap for progressing on loss and damage* from E3G.



A resident bathes her child next to their destroyed house in Carcar, Philippines' Cebu province on Saturday, days after Super Typhoon Rai hit the city. Credit: Victor Kintanar/AFP via Getty Images

24 E3G, 2022, "Roadmap for progressing on loss and damage" <https://www.e3g.org/publications/roadmap-for-progressing-on-loss-and-damage/>

2.1.1 Bilateral funding pledges

Global North countries should be providing new and additional finance for loss and damage while also increasing the overall envelope of international financing to guarantee that all countries have the means to address climate change and pursue sustainable development.²⁵ Several pledges of finance for addressing loss and damage were made during 2021 and 2022. The Scottish Government was the first industrialised country to pledge funding of £2m for Loss and Damage at COP26 in Glasgow (increased to £7m at COP27 in Sharm el Sheikh). They were soon

followed by the regional government of Wallonia and several philanthropies (see case study 4). Denmark committed DKK 100 million in September 2022, with a focus on the Sahel region.

At COP27 in Sharm el Sheikh, a number of other developed nations followed suit. The modest tally of over USD 300m so far is nowhere near the scale of finance required. However, the moves have broken an impasse by rich nations to offer such support or to discuss historical responsibility for climate change for fear of liabilities. The pledges made to date are summarised in Table 1.

Table 1 Loss and damage funding pledges

Funder	Pledge (USD)	Managed by	Allocated for
Austria	52m (over 4 years)	7m to Adaptation Fund	Climate vulnerable countries and SNLD
Belgium	2.5m	Belgium government	Storm warning systems Mozambique
Denmark	17.7m	Government of Denmark	Insurance and civil society across Sahel
Germany, Canada, Ireland and France	211m	Global Shield Against Climate Risks	Disaster risk financing (social protection, government bonds, etc.) to vulnerable countries
New Zealand	12m over 3 years (from existing climate budget)	New Zealand Government	EWS, disaster risk insurance in Pacific countries
Philanthropies	3m	CIFF, ECF, Hewlett Foundation, Global Green Grants Fund, OSF	Climate vulnerable countries and communities.
Scotland	8.5m	Climate Justice Fund, Scottish Government	Climate vulnerable countries, research and communities
Wallonia	2.15m	CVF and V20	Climate vulnerable countries

²⁵ Achampong, 2023

2.1.2 Multilateral development banks

Currently MDBs, often through UN agency intermediaries, provide finance through loans, and in some cases through grants, for projects aimed directly or indirectly at reducing losses and damages caused by climate impacts. These projects include measures such as early warning systems, cyclone shelters, flood defences, and social safety-nets. Relative to need, these actions are few in number, small in scale and often not categorised as finance for climate loss and damage.²⁶

MDBs also provide significant finance for post-disaster reconstruction projects, but this is largely in the form of loans. For instance, in the wake of the 2022 floods across Pakistan the Government signed a USD 475m loan

agreement for flood relief with the Asian Development Bank.²⁷

Given that the countries most vulnerable to climate change are often highly indebted, in order to reduce national debt burdens, and to contribute to fiscal flexibility, finance would be better disbursed in the form of grants or debt relief, rather than loans.²⁸ Urgent action to predictable, equitable, and fair, new and additional climate finance that does not exacerbate debt vulnerabilities in the Global South is necessary to avert the social, economic, environmental, gender and intersectional impacts of both debt and climate crises.²⁹ One solution which is garnering increased attention is for MDBs to develop new instruments to deliver that finance.

Box 2 Reform of the MDBs and the Bridgetown Initiative

The Bridgetown Initiative launched by the Government of Barbados in July 2022 states that achieving the SDGs requires rapid increases in low-carbon transition investments in the energy, transport and agriculture sectors. Substantial investment is also needed to build climate-resilience and sustainability, particularly in public health and education.

The World Bank intends to increase its climate finance from USD 10.9bn in 2016 to USD 31.7bn in 2022, making it the biggest multilateral funder of climate action in developing countries. Meanwhile, it invested USD 15bn in fossil fuel-related projects between 2016 and 2021.³⁰ This inconsistency/discord in policy is something new senior management could consider in future investments.

To deal with the climate impacts on vulnerable countries the 2022 Bridgetown Initiative calls for emergency liquidity, expanded multilateral lending, and activation of private sector funds. The International Monetary Fund is asked to return access to its unconditional rapid credit

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- 26 OECD DAC Rio climate markers do not include loss and damage measures but do include “contributions to reduce the vulnerability of human or natural systems to the current and expected impacts of climate change, including climate variability, by maintaining or increasing resilience, through increased ability to adapt to, or absorb, climate change stresses, shocks and variability and/or by helping reduce exposure to them”, see: https://www.oecd.org/dac/environment-development/Revised_climate_marker_handbook_FINAL.pdf
- 27 Arab News, 2022, “Pakistan signs \$475 million flood loan deal with Asian Development Bank” <https://www.arabnews.pk/node/2216571/pakistan>
- 28 Achampong, 2023
- 29 Eurodad, 2020, A tale of two emergencies – the interplay of sovereign debt and climate crises in the global south. [A tale of two emergencies – the interplay of sovereign debt and climate crises in the global south – Eurodad](#)
- 30 World Bank, 2022, Investing in Climate Disaster: World Bank Finance for Fossil Fuels https://bigshiftglobal.org/Investing_In_Climate_Disaster

and financing facilities to previous crisis levels, temporarily suspend interest surcharges, re-channel at least USD 100bn of unused Special Drawing Rights (SDRs) to those countries who need it, and, to promptly operationalise the Resilience and Sustainability Trust (RST) which was designed to help low-income and vulnerable middle-income countries build resilience to external shocks and ensure sustainable growth, contributing to their longer-term balance of payments stability.³¹ The IMF Board could indicate how the RST will support losses and damages, e.g. through shock-responsive social protection systems, establishing contingency funds, or underwriting affordable insurance products.

The G20 is requested to establish a Debt Service Suspension Initiative that includes all MDB loans to the poorest countries, and COVID-related loans to middle-income countries. Natural Disaster and Pandemic Clauses in all debt instruments should be normalised to absorb shocks better. Although some of these proposals are steps in a positive direction, many of them imply an increase in debt levels.

Further, the Initiative calls for implementation of the recommendations of the independent G20 Capital Adequacy Frameworks Review.³² The World Bank and other MDBs are asked to expand lending to governments by USD 1tn so that new concessional lending can prioritise attaining the SDGs everywhere and building climate resilience in climate vulnerable countries.

Finally, the Initiative identifies the need for a global mechanism for climate disaster reconstruction grants. This is particularly important for countries facing both severe restrictions to fiscal space and escalating climate impacts and risks.

2.1.3 Debt relief

Current climate impacts and future risks are focusing policy discussions on the management of existing debt stocks. Extreme climatic events are increasing the cost of servicing debts for developing countries, thereby squeezing the fiscal flexibility needed for climate adaptation and mitigation, and recovery from loss and damage. Reduced government revenues due to the cumulative effects of the 2008 financial crisis and the economic recession associated with the pandemic as external debt payment levels rise, have led some countries to increase their reliance on non-concessional loans. This worsens debt vulnerability and makes debt distress more likely.³³

Many Global South countries on the front line of the climate crisis are facing concurrent debt crises. Insufficient grant-based climate finance is forcing countries deeper into debt. Countries repaying vast sums to creditors are unable to invest in adapting to the climate crisis or addressing the associated losses and damages. As discussed in case study 1, there is a growing call from civil society and others for debt relief, adequate grant-based climate finance, and the suspension of debt payments when a climate-related disaster takes place.

31 IMF Resilience and Sustainability Trust, <https://www.imf.org/en/Topics/Resilience-and-Sustainability-Trust>

32 World Bank Group Statement on Capital Adequacy Frameworks, <https://www.worldbank.org/en/news/statement/2022/10/06/world-bank-group-statement-on-capital-adequacy-frameworks>

33 <https://assets.nationbuilder.com/eurodad/pages/1945/attachments/original/1610462143/debt-and-climate-briefing-final.pdf?1610462143>

Case study 1:

Climate Justice must include debt justice – Jubilee Scotland



Protestors for debt justice. Credit: Jubilee Scotland

The links between debt and the climate crisis have been highlighted by governments from lower income countries, civil society, the World Bank and IMF. While the G20 and IMF are responsible for addressing debt issues, there has been a lack of action due to a lack of agreement and concerted response by creditors.

A comprehensive monitoring and reporting framework around debt and climate finance would be helpful. It could cover bilateral, multilateral, intermediary and private finance flows. Regular reviews are needed to ensure that the evolving climate finance including loss and damage requirements of countries are addressed and do not add to debt levels.

Two initiatives to address the urgent debt crisis exacerbated by the COVID pandemic are the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatments. DSSI aimed to suspend debt payments temporarily so 73 of the world's poorest countries could use their resources to respond to the COVID pandemic. However, the scheme only suspended 23% of debt payments because private creditors largely did not take part. The Common Framework, launched in November 2020, aims to provide wider debt relief to countries

that request it. Chad, Ethiopia and Zambia have applied – but so far, no agreements for debt relief have been made.

In November 2020, Zambia defaulted on interest payments to private lenders and in February 2021 the government applied for a debt restructuring through the Common Framework. No progress has been made in the negotiations as large private creditors refused to enter into an agreement for debt relief. Zambia is currently experiencing devastating climate impacts including flooding, extreme temperatures and drought which is creating severe food insecurity. Zambia does not have the resources to address these challenges, in part due to unsustainable debt levels. During this decade Zambia is due to spend over four times more on debt payments than on addressing the impacts of the climate crisis, including addressing losses and damages.

Securing adequate grant-based climate finance is challenging because many climate finance solutions come in the form of additional loans. It is necessary that polluters make new, additional and better quality climate finance available, so countries are not forced into further debt because of the climate crisis.

An increasing proportion of lower income country debt is owed to private creditors (now around one third). A necessary condition for success is that the Common Framework is strengthened to force private sector participation in debt restructuring.

A challenge when working to implement suspension of debt payments when a climate-related disaster takes place is that such clauses exist but are not included in contracts systematically, they do not cover all forms of disaster, and can result in higher interest rates for the borrowing country. Resolving these impediments would help achieve the no additional indebtedness objective in addressing loss and damage highlighted in Section 6.2.

2.1.4 Nationally Determined Contributions and National Adaptation Plans

Nationally Determined Contributions (NDCs) sit at the heart of the Paris Agreement. They outline the ambitions of each Party state to reduce greenhouse gas (GHG) emissions and

adapt to the impacts of climate change. Parties are required to update their NDCs every five years. However, given the large gap between the emissions cuts required to limit global warming to 1.5°C and the reductions currently forecast, the Glasgow Climate Pact in November 2021 called on all countries to strengthen the targets in their NDCs prior to COP27 in Egypt.

At the time of writing, 31 nations have submitted revised and enhanced NDCs since 2022.³⁴ As NDCs are crucial to the implementation of the Paris Agreement, and science confirms that these NDCs must be dramatically strengthened if temperature, adaptation and finance goals of the Paris Agreement and the UNFCCC are to be met. Case study 2 from the Government of Vanuatu demonstrates how loss and damage can be incorporated into National Adaptation Plans as well as Nationally Determined Contributions to inform the mobilisation and allocation of funding through the UNFCCC.

Case study 2:

Loss & Damage in Nationally Determined Contributions (NDCs) to the Paris Agreement – Government of the Republic of Vanuatu



Communities in Vanuatu campaigning for loss and damage. Credit: Dr. Christopher Bartlett, Government of Vanuatu

Despite making a negligible contribution to global GHG emissions (0.0016%) Vanuatu is highly vulnerable to a number of climate risks, ranging from tropical cyclones to

prolonged droughts, ocean acidification, sea-level rise and extreme rainfall events. Climate loss and damage is now experienced by all island communities and households.

The Parliament of Vanuatu declared a Climate Emergency in May 2022 and committed to meeting Glasgow Pact obligations to revise and enhance its NDC before COP27. Vanuatu has submitted one of the most ambitious NDCs in the world, including dedicated sections on Loss & Damage and Adaptation, while also committing to achieving 100% renewable energy in the electricity generation sector by 2030.

34 <https://climateactiontracker.org/climate-target-update-tracker-2022/>

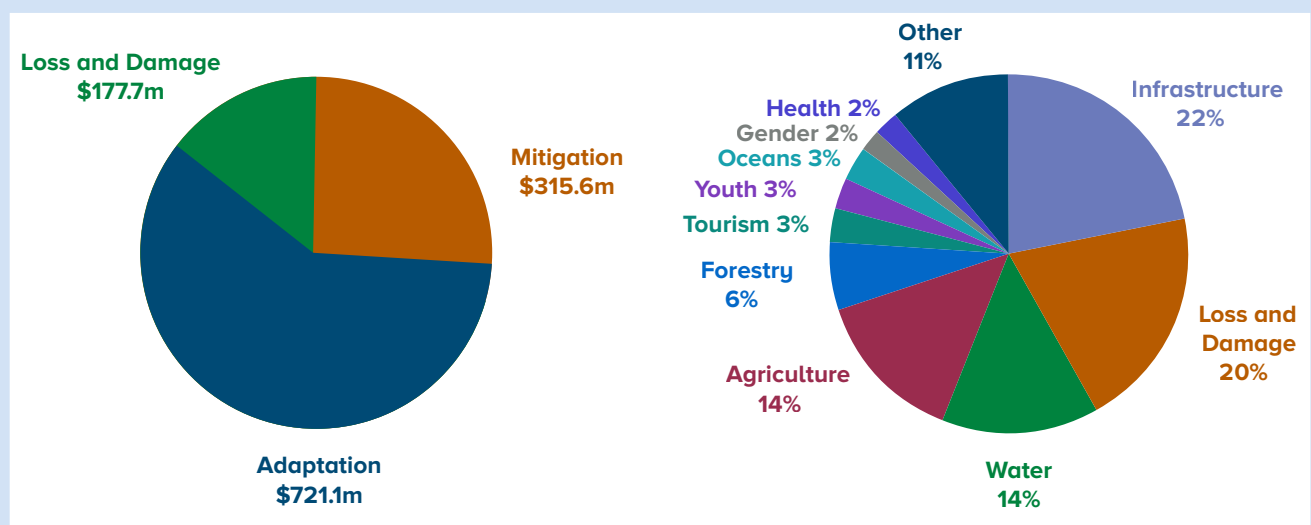
It is Vanuatu’s view that Loss and Damage is an equally important pillar of the Paris Agreement, and thus that Loss and Damage commitments must be fully included in NDCs. It is hoped that by demonstrating how Loss and Damage could be incorporated into the NDC formulation process, other nations, including donor countries can begin to mainstream this important issue into their main climate international policy documents.

Figure 1 is taken from the Vanuatu Revised and Enhanced 1st Nationally Determined Contribution 2021–2030.³⁵ The pie charts show the high costs associated with the limits to adaptation, as exemplified by the devastating financial, social and environmental

losses and damages experienced already and expected to increase exponentially as climate change accelerates. As Vanuatu is already a net negative emitter, most funding will be required for adaptation and addressing loss and damage.

An essential aspect of this process has been the costing of Vanuatu’s NDC commitments and disaggregating loss and damage. By costing these loss and damage interventions, the Vanuatu Government has provided a much clearer and more comprehensive perspective of how the new and additional finance will be utilised to address loss and damage at the domestic level.

Figure 1: Vanuatu NDC climate finance needs incl. adaptation and loss and damage



35 <https://unfccc.int/documents/578782>

2.1.5 Collective action for mobilising loss and damage finance

Mobilising finance for addressing loss and damage is urgent but in the context of recovery from the pandemic and the economic perturbations precipitated by the war in Ukraine it is very difficult. Countries needing loss and damage finance face significant indebtedness increasingly to private creditors and to China.³⁶

The climate threat multiplier is creating urgent finance gaps that are not being filled.

This is a moral issue, but it is also creating global financial instability and security risks. Addressing loss and damage is in everyone's interests. COP26 in Glasgow was a turning point, with political commitment to tackle loss and damage, but disappointment from many that what was agreed only amounted to more talks. Despite universal recognition of the importance of the issue, there was little concrete progress until the breakthrough decisions at COP27 which may help foster collective action.

Case study 3:

Roadmap for progressing on loss and damage – E3G



A woman walking through knee deep water, carrying supplies in a bucket on her head in Cap Haïtien, Haiti, after extreme flooding. Credit: Logan Abassi via UN Photo on flickr

This case study looks at who needs to act to enable the agreement of a credible package of measures, including an agreed way forward on raising and delivering the finance required for loss and damage (estimated to be between USD 290 and USD 580 billion per year by 2030). It also considers how to strengthen the risk management ecosystem to avert, minimise and address loss and damage.

Growth in political support for loss and damage was evident at COP27. Climate vulnerable countries such as the V20³⁷ are already acting. The G7 must commit to scaling up support for vulnerable countries and communities with public finance and to support an enabling environment for private sector investments. The UN Secretary-General is being encouraged to appoint a special envoy on loss and damage to drive finance ambition and champion the voices of vulnerable countries and communities who are most impacted.

36 <https://unctad.org/news/covid-19-matter-life-and-debt-global-deal-needed>

37 <https://www.v-20.org/>

An IPCC Special Report on Loss and Damage would ensure that political action is informed by the latest available science. The V20, which now represents 58 countries, together with the G7 launched the Global Shield against Climate Risks at COP27 in November 2022.³⁸ In April 2022, the V20 agreed to design and test a small grants funding facility to address loss and damage using resources from a joint V20-Climate Vulnerable Forum fund, with initial contributions from the Children’s Investment Fund Foundation (USD 1m) and the Open Society Foundation (USD 500,000). The G7 could commit to using it as a potential vehicle for addressing loss and damage.

The Global Shield against Climate Risks³⁹ could provide practical and complementary responses to loss and damage. The initiative could incorporate both financing and insurance options for climate risk preparedness and response, prioritising financial instruments to close the climate protection gap.⁴⁰

An observatory to monitor and assess climate risks globally would be helpful to better coordinate how loss and damage is addressed. An observatory could complement work under the SNLD and generate evidence for future global stocktakes by the UNFCCC.

2.1.6 Discussion

Ways to finance loss and damage have moved away from contentious conversations about compensation and liability. There is a growing recognition that it is a question of not just solidarity among nations but also that addressing loss and damage comprehensively is in the interest of all countries.

E3G quote Oxfam’s estimates of what developing countries will need each year to address losses and damages at between USD 290 and USD 580 bn by 2030.⁴¹ Vanuatu’s enhanced NDC estimates USD 720m for its own loss and damage. The gulf between what has been pledged so far (see Section 5) and what is needed is shockingly apparent.

SEI put forward the proposition that mobilising loss and damage finance should be on the basis of solidarity and account for local

needs. Further, loss and damage finance can recognise historical responsibility, operationalise the polluter pays principle, and adhere to the “common but differentiated responsibilities and respective capabilities” principle within the UNFCCC.⁴²

The climate crisis and the unsustainable rise of new debt are major obstacles to achieving the Sustainable Development Goals (SDGs). This will be a major issue in the review and consultations for the SDG Summit at the 78th session of the UN General Assembly (UNGA) scheduled for September 2023 and ahead of COP28 in Dubai UAE.

The MDBs can ensure concessional finance is available for vulnerable countries by expanding the eligibility criteria for concessional finance to include vulnerability to climate impacts. They could also provide grants for loss and

38 <https://sdg.iisd.org/news/v20-g7-launch-initiative-to-address-climate-risks-in-vulnerable-countries/#:~:text=The%2058%20members%20of%20the%20V20%20are%20Afghanistan%2C,Tunisia%2C%20Tuvalu%2C%20Uganda%2C%20Vanuatu%2C%20Viet%20Nam%2C%20and%20Yemen>

39 <https://www.bmz.de/en/issues/climate-change-and-development/global-shield-against-climate-risks>

40 https://climate.ec.europa.eu/news-your-voice/news/closing-climate-protection-gap-commission-staff-working-document-2021-06-10_en

41 <https://www.oxfam.org/en/research/footing-bill-fair-finance-loss-and-damage-era-escalating-climate-impacts>

42 Shawoo, et al., 2021; Shawoo and Bakhtaoui, 2022

damage to cover insurance risks in the most vulnerable cases, in recognition of the limits of insurance and the unaffordable premiums for many countries. Concessional finance may be appropriate and selected by some countries for such investments in sustainable development and resilience building. However, for addressing loss and damage in climate vulnerable countries grant finance is considered most appropriate.

2.2 Innovative finance for addressing loss and damage

With the COP27 decision to establish a Loss and Damage fund, there is a greater need to show how innovative finance could be deployed. Evidence presented in Section 2.1 shows that while a minimum floor for public sector finance to address loss and damage is necessary, it is also likely to be insufficient. The exploration of innovative mechanisms for mobilising finance from non-conventional sources is required alongside public sources.

The private sector innovates and mobilises finance in part to limit the ways that loss and damage is, and could further, erode productivity, decrease market access and squeeze returns on the bottom line. Addressing loss and damage can be integrated into businesses' climate risk management plans and corporate social responsibility strategies. Loss and damage could also be included in Environmental, Social and Governance (ESG) targets of multinational companies and financial service providers.

Risk pooling (e.g. risk insurance facilities, sovereign risk pools and other insurance solutions) are another set of measures that have been proposed as a way of warding off the consequences of losses and damages.

Regional mechanisms have been put in place to address climate impacts through risk pooling and transfer by countries. The African Risk Capacity (ARC) Group is a Specialised Agency⁴³ of the [African Union](#) established to help African governments improve their capacities to better plan, prepare, and respond to extreme weather events and natural disasters. The ARC mission is to use finance mechanisms including risk pooling and transfer to enable a continent-wide response to climate related losses and damages. Collaboration and innovative financing are being used to enable countries to strengthen their disaster risk management systems and access rapid and predictable financing when disaster strikes. Founded in 2007 and now with 23 members, the Caribbean Catastrophe Risk Insurance Facility (CCRIF) seeks to limit financial impacts of climate and other hazards to Caribbean and Central American governments. It provides short-term liquidity when an insurance policy is triggered by events including tropical cyclones, earthquakes, and excess rainfall. It covers mainly the fisheries sector and public utilities.⁴⁴

The private sector can also be regulated and taxed to generate finance for loss and damage. According to Oxfam, new, innovative sources of finance have a vital role to play in generating finance in ways that are fair and equitable⁴⁵. A number of potential innovative sources have been suggested by different actors that could provide stable and significant finance for loss and damage. Many embody the polluter pays principle by deriving finance from taxes on high-carbon activity. They include:

- A tax on international shipping emissions, or a 'bunkers tax': A major contributor of global emissions, yet barely regulated. A 'bunkers' tax would levy a carbon price per tonne of emissions produced.

43 <https://www.arc.int/>

44 <https://www.ccrif.org/>

45 [Footling the bill: fair finance for loss and damage in an era of escalating climate impacts | Oxfam International](#)

- A Climate Damages Tax: a charge on the extraction of each tonne of coal, oil and gas based on how much CO2 equivalent is embedded.⁴⁶ The revenues would be split between addressing loss and damage, and an allocation back to the country where the oil, coal or gas was extracted to support a just transition.
- Carbon markets: between 2013–2019, the EU ETS raised €49bn, a portion of which could be allocated to loss and damage.⁴⁷
- A Wealth tax: a tax based on a person's assets targeted at those with the highest net wealth. Oxfam recently estimated that a one-off wind-fall tax of 99% on the new, pandemic-era billionaire wealth of the top 10 richest men would raise \$812bn.⁴⁸
- Redirecting fossil fuel subsidies: The Climate Action Network says a 4% annual cut in fossil fuel subsidies by G20 countries could raise an estimated \$245 billion for loss and damage between now and 2030.⁴⁹
- International Air Passenger Levy: A fee on airline passengers was proposed to the UNFCCC by the Maldives, on behalf of the Least Developed Countries (LDC), in 2008, when it was estimated to have the potential to raise USD 8-10 billion a year.⁵⁰
- Financial Transactions Tax: A small fee or levy applied on transactions or trades of financial instruments, such as derivatives.⁵¹ Could be progressive as it would fall on financial firms doing large quantities of transactions and on wealthier individuals, though there is perhaps a weaker direct link to levels of emissions.

The case studies included in this sub-section include: *Early lessons from philanthropic funding for loss and damage* from Climate Justice Resilience Fund, *Solidarity funds for loss and damage: the Climate Bridge Fund*, from BRAC, Bangladesh; *Providing access to livestock insurance for pastoralists in the Somali Region of Ethiopia*, from WFP; *Testing insurance in high poverty high risk communities in Nepal*, from Practical Action; and, *Participatory & evidence-driven loss & damage finance processes, Sri Lanka* from SLYCAN Trust.

2.2.1 Philanthropic funding for loss and damage

Another form of finance which has already been mobilised for loss and damage is that from philanthropies. Case study 4 details how a group of philanthropies are both independently and collaboratively providing funding for loss and damage.

46 <https://www.stampoutpoverty.org/the-climate-damages-tax-a-guide-to-what-it-is-and-how-it-works/>

47 https://wwfeu.awsassets.panda.org/downloads/making_eu_ets_revenues_work_for_people_and_climate_summary_report_june_2021_2.pdf

48 <https://policy-practice.oxfam.org/resources/inequality-kills-the-unparalleled-action-needed-to-combat-unprecedented-inequal-621341/>

49 <https://us.boell.org/en/2022/05/31/loss-and-damage-finance-facility-why-and-how>

50 <https://www ldc-climate.org/resource/the-international-air-passenger-adaptation-levy-opportunity-or-risk-for-least-developed-countries/>

51 https://sciencepolicy.colorado.edu/students/envs-geog_3022/roberts_2017.pdf

Case study 4:

Early lessons from philanthropic funding for loss and damage – Climate Justice Resilience Fund

Following the Scottish Government's announcement of £2m to address loss and damage at COP26, a group of philanthropies, galvanised by the Children's Climate Investment Fund (CIFF), stepped forward with an additional commitment of £3m in funding to keep momentum going at and beyond COP26. Others in this group include Open Society Foundations (OSF), the William and Flora Hewlett Foundation, the European Climate Foundation (ECF), and Global Greengrants Fund (GGF).

Each philanthropy has its own loss and damage portfolio at varying levels of development, while also pooling a subset of funds. Activities include technical and diplomacy work, and advocacy. For example, OSF has supported the V20, Climate Emergency Collaboration Group (CECG), capacity-building efforts for COP negotiators, and piloted an initiative on cultural heritage with support for media. GGF has been consulting with their advisors to better understand their and grantee partners' needs around loss and damage; two re-granters of loss and damage funding are the Climate Justice Resilience Fund (CJRF) and CECG.

With additional funding from the Scottish Government, CJRF has made four large grants for addressing loss and damage to partners in Bangladesh, the Pacific Islands, Malawi, and has devolved grant-making to the Loss and Damage Youth Coalition (LDYC) to make grants to youth.⁵² CECG strongly supported

advocacy on loss and damage at COP27, funding both specific deep-dive initiatives and providing broad-based funding support.

Some of the key lessons that have emerged are as follows:

- The philanthropic organisations are showing that it is possible to deliver measures to address loss and damage and to catalyse additional investments from other sources.
- Each organisation is monitoring the impact of its efforts independently, but are moving towards more shared learning and efforts to collectively monitor impact.
- It is important to develop framing narratives for loss and damage. This should include whether and how to separate loss and damage from other spending areas including humanitarian assistance, adaptation, mitigation, and resilience-building. Distinguishing loss and damage from other efforts allows additionality and attribution to be captured.
- It is possible to learn from existing mechanisms and to channel finance for loss and damage through these e.g., social protection schemes.
- A key question remains as to how best to spend on loss and damage to catalyse other (larger) commitments, while not undermining the need for more loss and damage finance at scale from governments?

52 <https://ldyouth.org/2022/12/21/the-loss-and-damage-grantmaking-council-announces-the-winners-of-the-loss-and-damage-grant/#:~:text=In%20August%202022%2C%20The%20Loss%20and%20Damage%20Youth,damage%20by%20allowing%20youth%20to%20be%20active%20stakeholders.>

Being thoughtful and consultative when funding loss and damage has resulted in a slower-paced process, but there has still been good progress in the first year of operation for many philanthropies in this area. The funding committed at COP26 has been invested in on-the-ground action, research, and advocacy. Philanthropy is able to engage across this spectrum and can play an important role in linking these actions. Collaboration is undertaken with an awareness that new players risk alienating those who have been working the Loss and Damage policy space for a long time. However, better coordination is needed among the widening set of groups and organisations working on loss and damage, though this is not the preserve of any one organisation. Philanthropies see the sense in efforts to link loss and damage and climate justice issues, and to tie this into broader

climate and development movements and goals.

2.2.2 Solidarity funds for loss and damage

Providing support in solidarity with those people and communities unable to adapt to the impacts of climate change is one step towards climate justice. The CBF is a significant innovation related to solidarity funding for addressing loss and damage. The German development bank KfW has provided an interest-bearing endowment fund to BRAC (one of the world's biggest NGOs), Bangladesh, to support the CBF. This Fund strengthens the resilience of people displaced, or at risk of being displaced, by climate impacts. This finance is channelled to registered NGOs working with slum dwellers in four cities of the country.

Case study 5:

Solidarity funds for loss and damage: the Climate Bridge Fund, BRAC, Bangladesh – BRAC



Water Access unit built in Bangladesh. Credit: CBF, BRAC Bangladesh

The Climate Bridge Fund (CBF) is a trust fund established by BRAC with support from the Government of Germany through KfW bank. It supports projects implemented by NGOs in Bangladesh to strengthen the resilience of people displaced, or at risk of being displaced, by climate impacts. CBF has two funding

windows that support action on climate adaptation, mitigation and disaster risk reduction. Climate-induced migrants are supported in slum areas of Barishal, Khulna, Rajshahi, Satkhira and Sirajganj city corporations/municipality areas. These people have been displaced by the impacts of climate losses and damages and also face climate risks in the destinations they have moved to.

People displaced by climate impacts, losses and damages, often end up living in informal settlements with inadequate access to basic services. CBF works as a solidarity fund managed by BRAC, it is designed to channel finance from large donors to people in climate vulnerable situations. A USD 10m endowment generates interest that can be invested in projects, and KfW has allocated a further USD 10m for emergency responses.

The CBF works bottom-up fostering locally designed interventions by people, organised groups and local authorities. It supports innovation in the face of climate vulnerability. The Emergency Response Window supports climate-induced migrants and other people living in climate vulnerable hotspots of the country to address their needs due to losses and damages from climate and non-climatic disasters e.g. pandemic.

CBF is at an early stage. 18 projects totalling € 12m are underway. Improvements are anticipated in social development, economic opportunities, and reduced ecological risks. Projects include improving WATSAN, better housing, skills training, support for assets building, and cash to start-up small enterprises. Household solar systems and improved cookstoves are provided. Bridges and raised walkways are being built for access to work and schools during floods. Drainage systems, and solid waste collection

and management are being installed. CBF's monitoring indicates that incomes and savings of affected households have increased, with one recipient stating that, 'After losing my husband, life became difficult and COVID made it miserable. BRAC came as saviour with the cash support that helped me to start a small business. I will be able to run my family for at least 3-4 months without any worry if there is any disaster should hit us again'; testimony by Zanu Begum, Greenland Abason Slum, Khulna City Corporation.

The CBF is learning how to target and engage with the most climate vulnerable and how to address needs due to losses and damages. It has learned the scale of the task – of the 98 concept notes received in the first call only four could be supported due to the limits of the funding available. There are hundreds of climate-migrant communities across Bangladesh – CBF works in five.

The CBF model of mobilising finance from international sources to address losses and damages at local levels is one that could be adapted and tried elsewhere. While the solidarity fund approach using interest-bearing endowments is uncommon, the precedent is set now and could convince others to follow suit.

The regulatory and fiduciary lessons for establishing a solidarity fund are being considered in how best to take the CBF model into the African countries where BRAC also works with climate vulnerable communities. Each country will have its own regulations vis-à-vis the inward placement of funds into interest-bearing accounts. While BRAC has long experience of efficient channelling of funds to locally based organisations, fiduciary risks management is dependent upon the ways of working and the technical capacity available in the location where the implementing organisations work.

2.2.3 Index-based insurance

Risk transfer through various types of insurance is becoming an essential component of the global approach to addressing loss and damage. Risk transfer products need to be tailored for specific contexts. Index-based insurance programmes are used to manage risks related to weather and catastrophic events. They trigger payouts based on publicly observable indices that can include rainfall as measured by a nearby gauge, a commodity price, crop yields, or satellite data.

The speed at which payments can be issued under index-based insurance programmes makes it particularly suited to covering risks of loss and damage because there is no need to undertake loss assessment and adjustment for covered individuals.

Case study 6:

Providing Access to Livestock Insurance for Pastoralists in the Somali Region of Ethiopia – WFP

To address loss and damage and help communities cope with climate shocks, WFP developed the Satellite Index Insurance for Pastoralists in Ethiopia (SIPE) project. This is focused on delivering an index-based livestock insurance product. The objective is that payouts reach households quickly enough so that pastoralists can take the necessary steps to protect their herds and avoid distress sales, such as purchasing or producing fodder, paying for veterinary services, or purchasing water or fuel for pumping irrigation water.

SIPE provides access to insurance to pastoralists and agro-pastoralists in exchange for their contribution to the construction and rehabilitation of community assets. These assets, such as terracing and other soil and water conservation activities, are designed with local authorities and decrease communities' vulnerability to climate shocks over time. In addition, they receive training on financial literacy, income diversification, access to veterinary services and seed and fodder provision to build their longer-term resilience to drought-related shocks.

SIPE was designed based on a thorough feasibility study, building on existing examples (such as the Kenya Livestock Insurance Programme).⁵³ Over the years, many community consultations took place to ensure that the insurance product and the integrated risk management approach fit with the needs and demand of the targeted pastoral households.

Vegetation levels are monitored in the Somali region of Ethiopia to identify when vegetation is below the average growth thresholds, signalling that pasture and fodder availability may be reduced for livestock. SIPE then

triggers insurance payouts that are distributed to pastoralist households through a combination of mobile money and cash distributions. The record-breaking drought due to three consecutive failed rainy seasons between 2019 and 21 triggered an initial SIPE payout of USD 900,000 between 25,000 families to help them protect their herds.

Although few women lead pastoral activities in this region, a specific focus on gender is placed so that women are targeted and considered in the programme, as shown in recent monitoring conducted after the latest payout. Additionally, by design, SIPE targets vulnerable pastoralist households who are under the productive safety programme of the government (PSNP), confirming the level of food insecurity. As such, a social protection entry point is undertaken, while the programme targets graduating participants.

The sustainability of the index-based insurance in Ethiopia requires a comprehensive capacity development and policy advocacy strategy targeting beneficiaries, key implementing partners and policy actors. This strategy aims to create informed demand to encourage participation in the insurance scheme; enhance technical know-how among the implementing partners; and, strengthen advocacy for policy frameworks to mainstream insurance at regional and federal government levels.

To expand the number of beneficiaries and their access to financial services beyond insurance, WFP will enrol people into shock-responsive savings products that can release finance to cope with moderate droughts or other shocks not covered by insurance. Digital financial services and savings accounts to enhance financial inclusion literacy will also be promoted.

53 <https://www.financialprotectionforum.org/publication/kenya-livestock-insurance-program-klip>

As evidenced in the WFP Ethiopia case study (and the Practical Action Nepal case study that follows here) insurance is essentially a private sector market mechanism that can design and deliver appropriate schemes suited to the circumstances of people affected by loss and damage. Innovations in the design and delivery of weather-indexed insurance need to take account of accessibility to women as key asset owners for many poorer households, the complementarity and synergies possible with other social and asset protection interventions, and the need for local definition of the threshold triggers in the indexes driving payouts.

Linnerooth-Bayer and colleagues⁵⁴ reviewed insurance as a response to loss and damage. They found that micro-insurance programmes and regional insurance pools generate benefits but at significant costs. Such interventions need to be made affordable to poor. Public-private arrangements e.g. the African R4 micro-insurance programme and the African Risk Capacity (ARC) regional insurance pool, can bring risk transfer within reach of people facing loss and damage but require solidarity funding to do so.

Case study 7:

Testing insurance in high poverty high risk communities in Nepal – Practical Action



Horticulture livelihoods supported by index-based insurance in Nepal. Credit: Practical Action

The overall objective of this pilot was to develop an index-based flood insurance product as a risk transfer mechanism targeting climate vulnerable smallholder farmers and marginalised people in Western Nepal. The aim is to increase the resilience of farmers exposed to flood risk in five local governments areas of Sudurpaschim and Karnali provinces.

An assessment of the risks faced by the communities was made and the major hazards and levels of exposure were identified. It was necessary to identify historic hazard data for product design as

well as accurate data on current productivity and market prices.

Effective delivery mechanisms, using trusted intermediaries (local cooperatives), were essential to ensure the outreach, communication and support with local farmers and to enhance trust in the product. Different partners had different priorities and reaching consensus took time. One area that slowed down the design of the product was discussion over the premium costs and pay-out levels linked to different thresholds. It took a lot of work across all partners to make these realistic for the farmers.

54 Linnerooth-Bayer et al., 2019

It was necessary to test farmers' willingness to pay for insurance across different agricultural commodities and different hazards to identify where IBFI might work best. This was assessed using simple games. Based on these findings about risk and economic potential a research design phase to develop the insurance product itself was begun. Most importantly, a delivery mechanism was tested that made the product accessible to those who needed it while keeping administrative costs and processes to a minimum.

This pilot initiative and product was not covered by government subsidies. Proof of concept evidence will be needed for it to be

rolled out to other insurance companies. This will make the product eligible for subsidy of the premiums paid making it more accessible, especially to the poorest farmers.

An enabling environment has been created for piloting and scaling up the index-based flood insurance product that caters to the needs of climate vulnerable farmers. Vulnerable households have access to index-based flood insurance as an innovative risk transfer mechanism to secure their assets and build resilience to climate shocks and stresses to which they are exposed. In the first monsoon season since testing the scheme floods occurred and pay-outs have been triggered.

Index Based Flood Insurance (IBFI) is new in Nepal. Guidance for IBFI is lacking and although national policy promoting insurance exists, this fails to guide what a suitable insurance product should look like. The design of the product was based on the realities of the climate impacted farmers and not the economic profitability of the product.

2.2.4 Cooperation amongst multiple actors for loss and damage

Fostering cooperation amongst multi-actor partnerships, including private sector, can support access to finance for loss and damage action at local levels. Building capacity, generating evidence and sharing knowledge and lessons learned are needed to support evidence-based planning at local levels with the involvement of vulnerable groups.

Case study 8:

Participatory & Evidence-driven Loss & Damage Finance Processes – Sri Lanka, SLYCAN Trust



Community group discuss loss and damage needs. Credit: SLYCAN Trust

The research aimed to identify the effectiveness of existing loss and damage mechanisms for climate and disaster risk management in Sri Lanka, i.e. agricultural crop insurance and other resilience insurances which are led by domestic public funding. The assessment encompassed: capacity needs; the role of key stakeholders and the inclusion of multiple actors in the governance and decision-making processes; impact and ability to address the needs of vulnerable communities; and avenues for scaling up the scope and its impact through enhanced partnerships and access to additional finance.

An initial study was conducted on crop insurance in Sri Lanka through a policy, gaps and needs assessment. The findings were integrated into a broader planning process and the key findings focused both on national and local levels. Local level data was gathered for 500 farming households and people in divisional and district level government structures were interviewed to understand the ground realities of implementing the finance mechanism. Parallel activities focused on national level structures for loss and damage finance and

consultation with stakeholders including representatives from government, private-sector, civil society, youth groups, academia, and the media.

The initiative sought to enhance trust among the government entities involved in the Climate and Disaster Risk Finance and Insurance mechanism to engage with other stakeholders such as civil society, think-tanks and the private sector. This is important for scaling up loss and damage finance to reach vulnerable communities. Creating avenues for concrete partnerships among different stakeholders can help access additional funding.

The provision of evidence and lessons learned from developing countries for UNFCCC negotiations on loss and damage and the global goal on adaptation has been undertaken. This helps provide research-based evidence of the existing mechanisms which could be promoted as an example of how Sri Lanka has been burdening the costs of loss and damage for over 50 years, and the need to provide loss and damage finance to vulnerable developing countries building on existing mechanisms.

As the SLYCAN case study shows, the trust developed through inclusive and participatory processes is necessary to work with vulnerable communities. Innovations that include the private sector and marginalised communities need the enabling environment of a coherent national policy framework. Policy coherence – national to international and national to local – as this can help facilitate better finance accessibility to address loss and damage climate finance needs. Inclusive and participatory processes provide avenues for better implementation of such action with the inclusion of vulnerable communities through gender-responsive approaches.

2.2.5 Discussion

Innovations in terms of the mechanisms to distribute loss and damage finance need to be found and quickly. The private sector has a strong self-interest in addressing loss and damage in its own value chains, but it could also recognise its share in supporting vulnerable people. The polluter pays principle is particularly relevant here.

Experience from these case studies and a variety of other examples in different contexts show that, to be effective for poor communities, insurance premiums for climate risks should be subsidised or met from state coffers, and they should be designed to deliver support rapidly following shocks or triggered

by early warning information. Valuable lessons have been learned in Ethiopia,⁵⁵ Rwanda,⁵⁶ and the Caribbean.⁵⁷ These examples show that to invest wisely in insurance schemes, community members need to understand what they are paying for, what is insured and who will benefit. It is unclear how insurance could work in covering losses and damages caused by slow onset events, or non-economic losses and damages. Furthermore, with loss and damage

risks projected to escalate with continued global heating, there is concern that even more places will soon become uninsurable.⁵⁸

Insurance provides a valuable mechanism for transferring risks through commercial markets (see the insurance related case studies above). However, it is not a silver bullet and is better deployed as one tool within a suite of measures.

55 <https://ibli.ilri.org/category/countries/ethiopia/>

56 <http://www.icco-cooperation.org/en/blogs/mitigating-effects-of-climate-change-through-crop-insurance-in-rwanda/>

57 <https://unfccc.int/topics/adaptation-and-resilience/resources/S-N/CCRIF>

58 <https://www.climatechangenews.com/2022/10/21/hurricane-ian-could-push-insurers-out-of-florida/>

3 Practical Lessons to Determine Needs and Deliver Actions

Learning lessons from early initiatives to address loss and damage and from the related sectors of disaster risk management, humanitarian response and climate adaptation will speed up effective design of actions to address loss and damage. Lessons are drawn in this section from a set of case studies on determining loss and damage needs and on interventions.

3.1 Determining needs

The costs and harm caused by loss and damage are too often borne by the individuals, households, groups and enterprises who suffer the impacts. In the vast majority of cases they do so without assistance. These people need urgent external support, whether to cope with and recover from disasters, to build resilience to new environmental conditions, or to move out of harm's way. However, there are significant gaps in our collective understanding of who requires what types of support, where they are located, and how and when that support should be delivered.

The assessment of loss and damage needs can face a variety of challenges. Measuring the range and extent of loss and damage can be complicated. It is challenging to estimate the value of non-economic loss and damage as well as those economic and non-economic losses and damages caused by slow onset impacts. Affected populations do not always recognise loss and damage caused by climate change. While climate change may be an ultimate cause of a shock, local people affected may identify more proximate causes as being more significant. There is a disparity between the lived experience

of people already facing loss and damage and the information and data that is held by governments, civil society organisations and finance providers,⁵⁹ and such methodologies need to connect these data sources. Historical data is important to determine the levels and types of impact that climate change has already had on vulnerable households, marginalised groups, exposed ecosystems, infrastructure and services (see case study 9). Projections of the risks that climate change will have in the future over the short, medium and long-term, including the impact of consecutive and compounding shocks, can be assessed from climate scenarios and locally specific information on exposure, sensitivity, adaptive capacity and vulnerability.

The case studies included in this sub-section include: *Institutionalising national disaster loss databases* from UNDP, *Assessing Needs Connected to Loss and Damage in Malawi*, SCIAF; *Life amid Loss and Damage: Central American Narratives*, Ruta del Clima.

3.1.1 National Databases

Many Least Developed Countries do not have the technical capacity to generate or to analyse climate data to assess projected loss and damage risks.⁶⁰ It is urgent that support is provided to build capacity for climate risk analysis and loss and damage needs assessments. For example, UNDP and Milliman are collaborating on a programme whereby US\$2 million per year to 2025 of pro bono services is being provided to build developing country governments' capacity in analytical techniques of risk management.²⁸

59 Bharadwaj et al., 2023

60 <https://www.undp.org/publications/data-and-digital-maturity-disaster-risk-reduction-informing-next-generation-disaster-loss-and-damage-databases>

Case study 9:

Experiences and challenges from institutionalising national disaster loss databases – United Nations Development Programme

An initiative to establish national disaster databases has been supported by UNDP since the late 1990s in more than 35 countries around the world. A typical national disaster database aims to record all past disasters of climatic origin disaggregated at sub-district levels and includes impacts on populations and key sectors (transport, agriculture, environment, and others). The goal has been to build national capacities for collecting data on occurrences and impacts of disaster events and to analyse the data for policy, planning and decision-making. These databases are in the public domain and are managed by national governments.

Typically, the in-country initiative is led by the national disaster management agency in consultation with several key stakeholders (departments of statistics, transport, environment, and others). Collectively they agree on data collection formats. Information on past and current disaster events of climatic origin is collected from national and sub-national levels. This includes gender, age, and disability disaggregated data. The availability of historical data in different countries varies from 10 years to as much as 30 years, but the quality and credibility reduces over time. Technical training for managing the system is provided to key stakeholders while the work is implemented by UNDP. At the end of the establishment phase and before handing over to the government, an analytical report is prepared and shared with a wider group of stakeholders.

National ownership and capacity are crucial to institutionalise the data management and to use the data for disaster risk reduction and climate change adaptation, while open access policies increase the value of the databases for public good.

Some countries have been managing online disaster databases for as much as 10 years following initial support from UNDP. A nationally owned system, fully managed by the government, is in place in Indonesia⁶¹ and Cambodia.⁶² Both national governments have been managing the systems for several years and the databases have both national language and English language interfaces.

Governments use the analysed data to understand the disaggregated spatial and temporal impacts of past events on populations and key sectors of the economy. Governments are also using the data as part of monitoring indicators of national disaster risk reduction, climate change adaptation plans and activities under the Sendai Framework for Disaster Risk Reduction.

Challenges encountered are: lack of uniformity in hazard characterisation and loss attribution (sudden and slow onset) of both economic and non-economic losses; lack of standardisation in primary data collection in terms of hazard event characteristics and associated losses; lack of compatibility and standardisation between primary loss data obtained from assessments and the data fields in national databases.

61 <https://dibi.bnppb.go.id/>

62 <http://camdi.ncdm.gov.kh/>

The work by UNDP on national disaster risk databases shows that countries often lack the capacity to record the data that is needed to assess needs in terms of impacts and/or risks. More regular and systematic primary data collection and reporting of hazard events, including physical loss and damage, and economic loss is necessary. The agencies involved in establishing national disaster databases consider that medium-term support is needed for greater institutionalisation of data registration at country level. Universal adoption of an internationally accepted, standardised coding systems to allow unique event identification would also be helpful.

3.1.2 Participatory Capacity and Vulnerability Analysis (PCVA)

There are tried and tested assessment approaches that can be built upon for loss and damage needs assessment e.g. Post-Disaster Needs Assessment (PDNA) and Participatory Capacity and Vulnerability Analysis (PCVA). PCVA⁶³, and other vulnerability assessment approaches, can be helpful in identifying causes of harm and vulnerability, choose ways to reduce particular risks, and minimise negative social or ecological outcomes.⁶⁴ These methods emphasise locally held

knowledge on context, social structures and (informal) institutions relevant to addressing loss and damage.

Humanitarian and development agencies use the PDNA methodology to determine the physical damages, economic losses, and costs of meeting recovery needs after a natural disaster through a government-led process.⁶⁵ The PDNA methodology is very flexible and has been used widely in different types of crises including those arising from natural hazards (earthquakes, volcanic eruptions, floods, droughts), pandemics (Ebola, Covid), social unrest (Ecuador after the indigenous protests) etc. Covid assessments have been made using PDNA in different countries of Latin America, in Eastern Europe and across Africa. PDNA includes ways to understand the social and human impacts – short, intermediate and long-term consequences – of disasters. Aligned to the PDNA is the Human Impact Assessment (HIA) methodology⁶⁶ which has been developed over the last five years. This examines five key compounded indicators: living conditions, gender equality, food security, social inclusion and livelihoods.

The following SCIAF case study presents new findings from current work in Malawi.

63 <https://www.rcrc-resilience-southeastasia.org/disaster-risk-reduction/community-based-disaster-risk-reduction/vulnerability-and-capacity-assessment-vca-and-other-assessment-tools/#:~:text=Vulnerability%20and%20capacity%20assessment%20%28VCA%29%20is%20a%20process,capacity%20to%20cope%20and%20recover%20from%20a%20disaster>

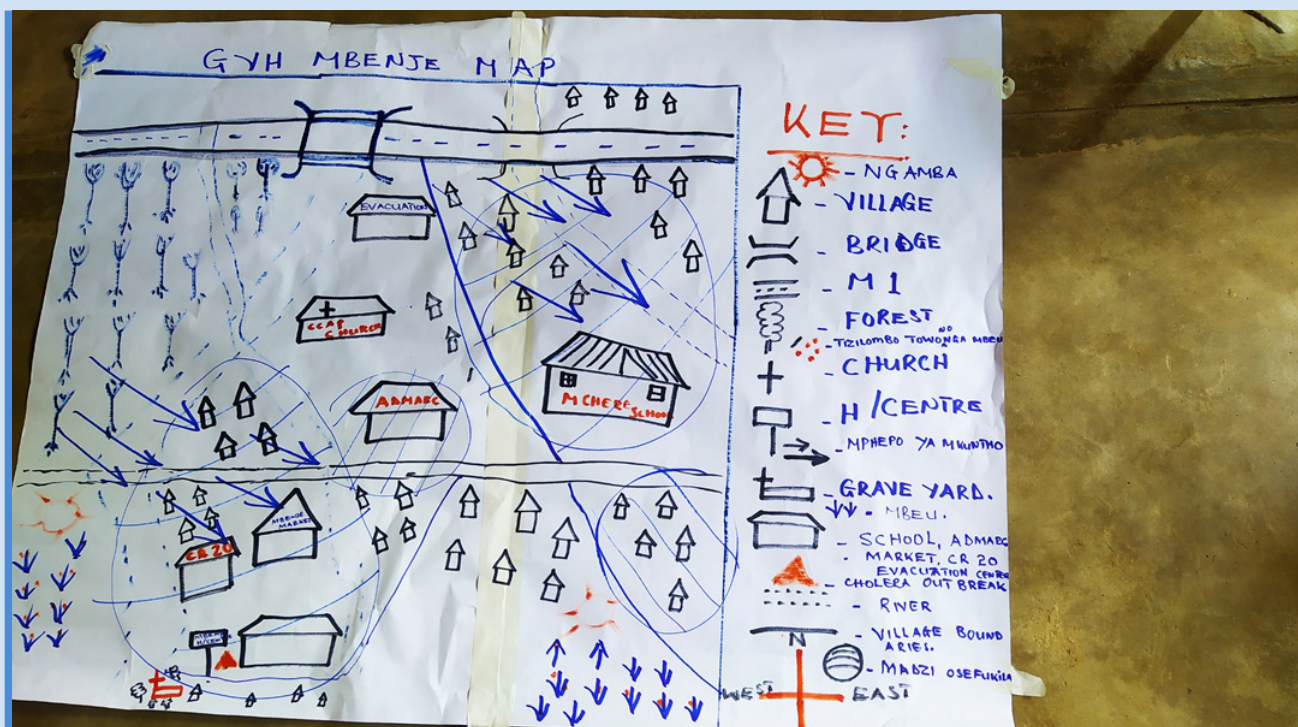
64 Thiault et al., 2021

65 <https://reliefweb.int/report/world/post-disaster-needs-assessment-pdna-lessons-decade-experience-2018>

66 <https://humanimpact.org/wp-content/uploads/2011/01/HIA-Guide-for-Practice.pdf>

Case study 10:

Assessing Needs Connected to Loss and Damage in Malawi – SCIAF



Hand Drawn Village Resource and Hazard Map. Credit: Maggie Ngwira, Trocaire Malawi

This project aims to address both economic and non-economic losses and damages resulting from Storm Ana and Cyclone Gombe which hit Malawi in January and March 2022. A community-led needs assessment is being undertaken to understand specifically how these extreme weather events impacted households in Nsanje and Zomba districts.

The PCVA has been adapted to assess losses and damages. The assessment is guided by the Post Event Review Capacity (PERC) manual.⁶⁷

Once the communities were selected and permission from District Government received, PCVA was used to determine what losses and damages had occurred and to whom. Women and girls were engaged using methods such as female-only forums, to determine how loss and damage events disrupt service provision to them, including health, education and social protection.

A PCVA approach was used to understand better the losses and damages and to identify measures to address them. The PCVA included a basket of assessment tools – see Table 2.

67 <https://floodresilience.net/resources/item/the-perc-manual/>

Table 2 Tools used in loss and damage needs assessment in Malawi

Tool	Objective/Purpose
Stakeholder mapping	To Identify all key interested parties (i.e. influencers, those who may feel positive or negative about the project, who will be impacted, who might support the implementation of the project etc.).
Access and control of resources	To identify which groups of people have access to key resources, and which groups control the use of various resources.
Historical trends and timeline of events	To understand the history of the Community. To identify key events and trends throughout history of the Community or Village—either positive or negative. To discuss the effects of key events in history.
Seasonal calendar	Exercise to identify and discuss seasonal events and activities (cropping, livestock, migration, income, expenditure). The tool looks at the seasonal labour from a gendered perspective to gain an understanding of gender dynamics and workloads.
Resource and hazard mapping	A Resource Map is prepared by the community to provide an understanding of which places and resources are used for what purposes in their locality, and to then identify the hazards and which areas and resources are the most affected.
Hazard and Risk analysis, Risk Quadrant, Hazard Assessment matrix	Hazards affecting the community are mapped and ranked, and displayed in a Risk Quadrant or Matrix to understand risk in terms of impact and probability. The analysis of hazards is linked to understanding what was lost and damaged with each hazard.
Key Informant Interview	To collect sector specific information, and expert opinion to help form a more comprehensive understanding of the risks in the targeted communities.

Some of the main types of losses and damages that were revealed by the assessment included houses collapsing, damage to dykes, public health disease outbreaks, damage to crop fields, injuries and death of people, loss of livestock, destruction of bridges, and damage to toilets and water points.

Community participation is built in across the stages of the project, and interventions have been co-designed with the community, as outlined below:

- i. Participatory activities with the communities to co-design interventions to address the losses and damages that have been experienced.

- ii. Evaluation of the programmes impact from loss and damage perspective, articulation of how to measure loss and damage and predicted impact on reduction of future risks.
- iii. A long-term participatory resilience assessment will be developed to explore the impact of the interventions on reducing vulnerability and addressing experiences losses and damages.
- iv. Knowledge, reflection, learning and experience from the programme is widely disseminated to inform the global discourse on action to address loss and damage.

In response to the losses and damages experienced in the districts, not just in 2022 but over a series of years and to droughts as

well as floods, local people identified the following response measures: tree planting; removing sand from rivers; road maintenance; introduce irrigated crop farming; construction of dykes; disaster early warning provision; moving homes to uplands less prone to floods; swale construction for channelling storm water; making compost and using manure on crop lands; awareness campaigns on the effects of deforestation; introduction of drought-resistant crops; building stronger houses; and, construct of evacuation centres – storm shelters. This work shows that in assessing needs for addressing loss and damage, consultation at the local level is necessary both to understand what is lost and damaged and what measures are best to address them.

The SCIAF case study shows how varied are the needs of different people even in the same location, the importance of local peoples' perspectives in identifying how to address needs, and therefore the importance of bottom-up approaches to needs assessment.

Taking a community-led participatory approach centres the voices and opinions of those affected to articulate how addressing loss and damage can fill gaps for communities on the front-line of climate impacts. Key challenges are articulating and addressing non-economic loss and damage and relating these to other more tangible measures to address economic loss and damage. Shared learning in this space with global communities of practice is important.

3.1.3 Assessment of needs using testimonies from local communities

In recent years, Central America has experienced a continuous cycle of extreme weather events that have particularly affected those whose livelihoods are climate sensitive, notably farmers and fisherfolk. Their testimonies demonstrate that there are significant community-level implications with regard to loss and damage.

The issues raised in this case study on non-economic loss and damage are explored in greater detail in Section 4.

Case study 11:

Life amid Loss and Damage: Central American Narratives – Ruta del Clima

Central America is highly affected by climate impacts. La Ruta del Clima, supported by Oxfam, has been promoting efforts to generate research findings from across the region. Communities and key actors from Guatemala, Honduras and El Salvador participated in this research including indigenous people, smallholders, fisherfolk, and people from rural, urban, peri-urban areas. All participants had experienced climate-induced loss and damage in the last decade. A variety of ecosystems, lifestyles, and socio-productive activities were explored. Likewise, age and gender diversity, particularly women and young people, as well as historically excluded groups, were also included.

For the people interviewed, it is clear that climate change does not occur in a vacuum. The testimonies reflect that climate change interacts with other elements of daily life, such as social relations and human decisions related to non-economic loss and damage. All the communities visited mentioned other stress factors exacerbated by climate change.

A rich territorial perspective was encountered as was a very careful and detailed understanding of their communities.

Even so, certain unsustainable adaptation measures may be adopted. Families are investing more and more to meet their basic needs, which often intensifies their socioeconomic and environmental vulnerability.

The research process highlighted the low level of engagement with communities by government, or their complete absence while evidencing the preponderance of humanitarian agencies and local organisations. These agencies frequently respond to emergencies and they are developing adaptive capacities in the communities while addressing urgent needs for food, decent housing, and a healthy environment.

The research also found that the closure of democratic spaces in all countries and the occurrence of economic conflicts between communities and extractive enterprises can exacerbate vulnerability to the impacts of climate change. These conflicts endanger the lives of environmental human rights activists across Central America and make it even more pressing to take comprehensive measures to guarantee climate justice and human rights.

This exploratory research demonstrates the possibility to identify the needs and political demands of communities in the Central American region in relation to loss and damage. Furthermore, that social research and community participation are key to addressing loss and damage.

The Ruta del Clima case study reminds us that despite the escalation in extreme weather events and the disproportionate impacts on people less able to fully recover from previous

events, there is often too little engagement with affected communities by government. Humanitarian agencies and local organisations attempt fill this void. This is made worse where democratic spaces are scarce and economic conflicts drive wedges between stakeholders. These factors operate against determining or even recognising loss and damage needs. Climate justice will be better served by opening and widening social dialogue and learning processes that includes the determination of loss and damage needs.

3.1.4 Forecasting future needs to facilitate actions to minimise and address loss and damage

To model floods and droughts and their likely impacts on cities across the world to 2050 is as ambitious as it is necessary. Determining needs to address loss and damage in pre-emptive ways that can be incorporated into

city development merges evidence-based adaptive management with climate disaster preparedness, as described in the following case study. The fact that city authorities have been prepared to use this foresight evidence in planning water management protocols and infrastructure protection investments demonstrates the value of the evidence generated to decision makers.

Case study 12:

Strengthening water and resilience in cities – the way forward, C40 Cities

The objective of the Water Safe Cities (WSC) work is to reach a more complete and holistic understanding of water scarcity and excess, and to support cities in developing and implementing strategies for handling these issues. It is important to convince city mayors to act by providing evidence of need and demonstrating the costs cities will have to bear for water resources management.

Phase I of WSC combined research, technical assistance working with cities, and direct interaction and knowledge sharing between cities through the water security network. The research was done in partnership with Climate Adaptation Services and the Institute of Environmental Studies. Using data from global climate models fed into hydrological models, future hydrological processes including runoff, streamflow, riverbank overflows, and groundwater recharge were analysed for C40 Cities. This allowed the estimation of riverine and coastal flooding and water losses that each C40 city will experience by 2050. A similar process was used to analyse water shortages and drought also to 2050. Infrastructure maps were used to calculate the cost of urban damage in flooded zones. This evidence was used to support cities to develop and implement strategies for water management.

This is the first research to calculate risk of flooding and drought for C40 cities to 2050. Calculation of population exposure risk and projections of costs of urban damage and loss of productivity due to riverine and coastal flooding were conducted. The numbers of hospitals and healthcare facilities, as well as energy generation facilities, that face flooding by 2050, were estimated.

Technical assistance was provided to Buenos Aires to develop and plan for a de-paving strategy and green infrastructure strategy to absorb runoff from stormwater flooding. Johannesburg has developed first steps toward organising and coordinating an integrated water management strategy. Finally, Istanbul developed a strategy to manage the water losses and leakages.

Some key lessons from the project are:

- Latin American cities face some of the highest increases of riverine flooding and several West African cities face severe agricultural drought.
- Urban damage from riverine flooding will more than double by 2050, to an estimated U\$D 64bn per year.
- It will cost C40 cities an estimate U\$D 111bn every year to replace the water lost from surface sources (rivers, lakes and reservoirs).

- Over 300 power stations across C40 cities are at risk of being flooded by 2050. More than half of the power stations affected are located in US cities.
- As many as 2,400 hospitals and healthcare facilities in C40 cities could be flooded by 2050, with nearly half of them in India.
- City mayors need to act now to protect the vital services serving billions of urban dwellers, and to plan robust emergency response protocols for floods and droughts.
- Water governance is not restricted to within a city's borders. Coordination will be key between city decision makers, and regional and national governments.

3.1.5 Discussion

The context-sensitive aspect of loss and damage makes it difficult to standardise methodology across diverse contexts. Attribution of loss and damage to climate change is a limitation in existing assessment models, especially in places where climate change and conflict coincide.

The assessment of needs can face a variety of challenges – from identifying what types of loss and damage have occurred, to understanding the gendered and intersectional aspects of vulnerability, to identifying priorities for action within the given resource envelope available. Measuring the range and extent of loss and damage can be complicated, particularly in estimating the value of non-economic and slow onset forms. While climate change may be an ultimate cause of a shock, people affected may identify more proximate causes as being more significant, and this can influence how response measures are designed and adopted.

Basing policy intervention on local consultation, research and evidence can help mitigate these challenges. Articulating ground-level reality to policymakers will help them understand the challenges so as to better inform national policies and practices.

3.2 Delivering actions

Delivering interventions to address loss and damage is complex. In any one location people will be affected differently by the same hazard and may require a variety of supports to recover and build resilience for the next shock. Furthermore, as climate shocks increase in frequency and severity, and extreme weather events interact with slow onset processes, the associated risks will compound one upon another with devastating results. This will require a ratcheting-up of interventions over time. Low probability but highly destructive ‘fat-tail’ climate events are becoming more common and need to be planned for and responded to effectively.

The case studies presented were chosen to illustrate key learning on the delivery of measures to address losses and damages across different settings and resulting from different climate impacts. They include: Clarifying loss and damage legal pathways through an International Court of Justice Advisory Opinion, Government of the Republic of Vanuatu; *Devolved climate finance in Kenya: lessons for loss and damage finance delivery*, NDMA & IIED; *Integrating climate-related loss and damage into territorial planning*, Gossas, Senegal; *Anticipatory actions to at-risk communities*, WFP; *Redirecting Involuntary Migration*, Helvetas; and, *The L&D Youth Grant-making Council*.

3.2.1 An enabling legal framework for addressing loss and damage

The lack of clarity on the legal obligations of all States to prevent and redress the adverse effects of climate change was identified first by students in the Pacific region. This was then taken up by Vanuatu and allied states,⁶⁸

which are seeking an advisory opinion (AO) by the International Court of Justice (ICJ) to strengthen the resolve in international climate negotiations and encourage higher ambition for addressing loss and damage by clarifying legal principles to protect the rights of present and future generations against the adverse effects of climate change.

Case study 13:

Clarifying loss and damage legal pathways through an International Court of Justice Advisory Opinion – Government of the Republic of Vanuatu

Through a vote in the UN General Assembly, Vanuatu is seeking an advisory opinion (AO) on climate change from the International Court of Justice (ICJ). This would provide an authoritative statement of what international law requires in the context of climate change.

The initiative to seek an ICJ AO on climate change was originally conceived by Pacific youth⁶⁹ who were later joined by a global network of youth advocates for climate justice. In September 2021, recognising the urgency of the climate crisis for the Pacific, and responding to this youth-led grassroots movement, Vanuatu formally launched the campaign to seek an ICJ AO. Together with a core group of supportive countries from every major region, Vanuatu is working collaboratively to distil the text of the resolution and question. At the time of writing this report, the draft had been shared with core member states and feedback from other UN member states had been received. A further updated resolution text has been released. There may be further updates

before the member states vote in March (date to be confirmed). This UN process ensures that all states will have a say in the formulation of the resolution and question.

An ICJ AO on climate change could help to address loss and damage in at least two ways. First, by stating authoritatively what international law requires, an ICJ AO would help reduce ambiguities and overcome stagnation in international negotiations, including with respect to politically fraught topics such as loss and damage. Second, ICJ advisory opinions are very influential and have been regularly cited in national, regional and international case-law. An ICJ AO on climate change could help to clarify general principles relevant to climate change cases. Uncertainty around the appropriate legal principles to apply has been a major stumbling block for climate litigation to date. Clarification from the ICJ would help to overcome this barrier and facilitate climate litigation efforts that seek to hold major emitters responsible for climate-related loss and damage.

68 Antigua & Barbuda, Costa Rica, Sierra Leone, Angola, Germany, Mozambique, Liechtenstein, Samoa, Federated States of Micronesia, Bangladesh, Morocco, Singapore, Uganda, New Zealand, Vietnam, Romania and Portugal

69 <https://www.pisfcc.org/news/vanuatu-launches-the-icjao-campaign>

This Small Island Developing States (SIDS)-led diplomatic strategy helps to ensure that the question posed to the ICJ represents the needs of the most vulnerable and maintains a strong climate justice orientation. A challenge is that the ICJ renders an underwhelming or unhelpful opinion, so the question has been carefully drafted in consultation with leading international legal experts to maximise the likelihood of a progressive opinion. This risk can be further mitigated during the advisory

proceedings through the submissions of States and other organisations.

Success depends upon broad political support. The resolution needs to achieve the requisite number of votes in the UN General Assembly and find acceptance by the ICJ. Concerted diplomatic efforts have been focused upon building solidarity and support among nations. Alongside this, public awareness and campaigning around the initiative are important to foster political will.

By clarifying the legal obligations of all States to prevent and redress the adverse effects of climate change, an ICJ AO would advance climate justice at the international level by strengthening international climate negotiations and encouraging higher ambition action, and at the regional, national, and sub-national level by clarifying legal principles central to climate litigation efforts.

A complementary legal initiative is that by COSIS (the Commission of Small Island States for Climate Change and International Law) who likewise intend to request an Advisory Opinion from the International Tribunal for the Law of the Sea, on the specific obligations of State Parties to the United Nations Convention on the Law of the Sea ('UNCLOS') to prevent, protect and preserve the marine environment from climate change impacts.⁷⁰

With regards to establishing the moral and legal basis for mobilising finance for loss and damage, Chile and Colombia have recently requested an AO on climate change and human rights from the Inter-American Commission on Human Rights.

While the ICJ and other advisory opinions are not legally binding they are significantly persuasive, and could influence on the outcomes of climate-related litigation. Depending on the claimants and the basis of the claim, these outcomes could in turn have financial implications. The AO may not help leverage finance from major emitters directly, but it would send a moral signal that will be hard to ignore.

3.2.2 Enabling Environment for Loss and Damage Interventions

Case study 14 describes how Kenya has established a Devolved Climate Finance (DCF) mechanism to address climate vulnerability and build climate resilience at the community level, especially in Counties at high risk of climate shocks in the country's Arid and Semi-Arid Lands (ASALs). This provides a useful model for delivering loss and damage interventions through devolved government structures.

⁷⁰ https://www.itlos.org/fileadmin/itlos/documents/press_releases_english/PR_327_EN.pdf

Case study 14:

Devolved Climate Finance: Lessons for Loss and Damage Finance Delivery – Kenya, NDMA and IIED



A woman waters crops planted using funds from the CCCF in Kenya. Credit: Flore de Preneuf

Kenya is highly exposed to climate shocks, and El Nino-related droughts and floods, which are increasing in frequency and intensity due to climate change. To address the impacts of climate change, and to support locally led climate adaptation, the Kenyan government has established a system of County Climate Change Funds (CCCF) to deliver reliable climate finance directly to climate vulnerable communities, for the implementation of contextually relevant and locally led investments.

The CCCF aims to channel climate finance directly to the community level to address local needs, but it functions through a nested system in which finance flows from the national government's Treasury Department, through County governments, down to climate vulnerable communities.

In 2010 Kenya adopted a new Constitution which created a devolved system of government that gave new levels of authority to Counties. This prompted the government's Ministry for the Development of Northern Kenya and the Arid Lands to explore how the devolved system could be used to address climate change more effectively. The Ministry invited IIED and a consortium of local and international non-governmental partners to develop a DCF mechanism using a whole of society approach, based upon the principles of community participation and subsidiarity in decision making.

The consortium was governed by a political steering group that included the Minister and Permanent Secretary, and by a technical working group that included both government and non-government members.

The DCF mechanism was designed with the involvement of county government officials and local NGOs who represented community members. Once established, the CCCF are implemented on the basis of a community led approach, where climate risks, investment decisions and the allocation of finance are informed by community priorities. This has resulted in a significant increase in the flows of funds for climate action at the local level. It has also provided a significant increase in the amount of finance available for institutional strengthening across local governments.

The CCCF have also incentivised institutional strengthening by county governments as they cannot access climate finance unless they meet the minimum standards required by the fund. There is much better integration of

climate action with long-term development at county and community levels and a significant increase in public participation in public decision making increasing the levels of trust between citizens and the state. County development plans are now informed by community level assessments of climate risks, and by community climate adaptation plans.

Counties that have piloted the CCCF have reported improvements in community level resilience to climate shocks. This has resulted from the investment of climate finance into local assets, especially strategically placed water resource investments. These have improved reliable access to water for households and livestock, reducing drought vulnerability and increasing resilience during drought periods, with particular benefits for women.

The DCF initiative deliberately set out to address the ways that droughts effectively derailed local development in arid areas of Kenya by taking funds away from economic and social development that county governments planned and using them as contingencies for drought response. This approach offers a valuable example of how climate finance can be delivered on the basis of participatory risk assessments to support communities to prepare for, cope with and recover from climate impacts.

Delivering bottom-up participatory approach to planning, budgeting and decision making is time consuming and costly. It requires a significant investment of time and money in soft processes that many donors are not willing to support over the long term. The DCF approach requires a long-term financial commitment either from the government or from international finance providers to enable countries to move beyond pilots and to institutionalise delivery mechanisms. The

World Bank has provided credit funding to the Kenyan Government to out-scale the DCF model to further counties. In the longer term, the DCF approach requires national governments to gain access to climate finance at scale. This demands that the GCF and other climate finance providers improve access to finance, especially for LDCs, by improving the efficacy of enhanced direct access modalities. The Kenyan model for CCCF and DCF is being adapted in pilots in Tanzania, Mali and Senegal.

The DCF approach depends heavily on the ability to devolve decision-making authority to the local level. In Kenya this was facilitated by the adoption of a devolved system of government which availed a significant portion of the national budget to local administrations and gave them the mandate to develop legislation. Addressing climate risks effectively depends upon the establishment of strong institutional systems, which requires an iterative approach to testing and solving problems – this is messy and takes a long time.

Case study 15:

Integrating climate-related loss and damage into territorial planning – Conseil départemental de Gossas, Sénégal



Tornado forming behind white buildings in Gossas, Senegal. Credit: Mamadou ndong Touré

Losses and damages induced by climate change are evident in the department of Gossas, Sénégal. Drought, strong winds, heat waves and salinization of water sources have imposed losses and damage on agricultural and pastoral communities. Faced with these impacts, the Departmental Council has integrated loss and damage into territorial planning, using tools such as vulnerability matrices and multi-criteria analyses.

The decision to integrate the loss and damage into territorial planning was taken by the Departmental Council which is made up of 40 members, including 20 women. Women's participation in the plan has been crucial as they are the most vulnerable to loss and damage and it should be priority to support actions on their behalf – by and for women. The role and situation of young people have also been important as they are the drivers of the paradigm shift towards a better integration of loss and damage into development planning. Action research is being carried out to better understand the loss and damage caused by climate change.

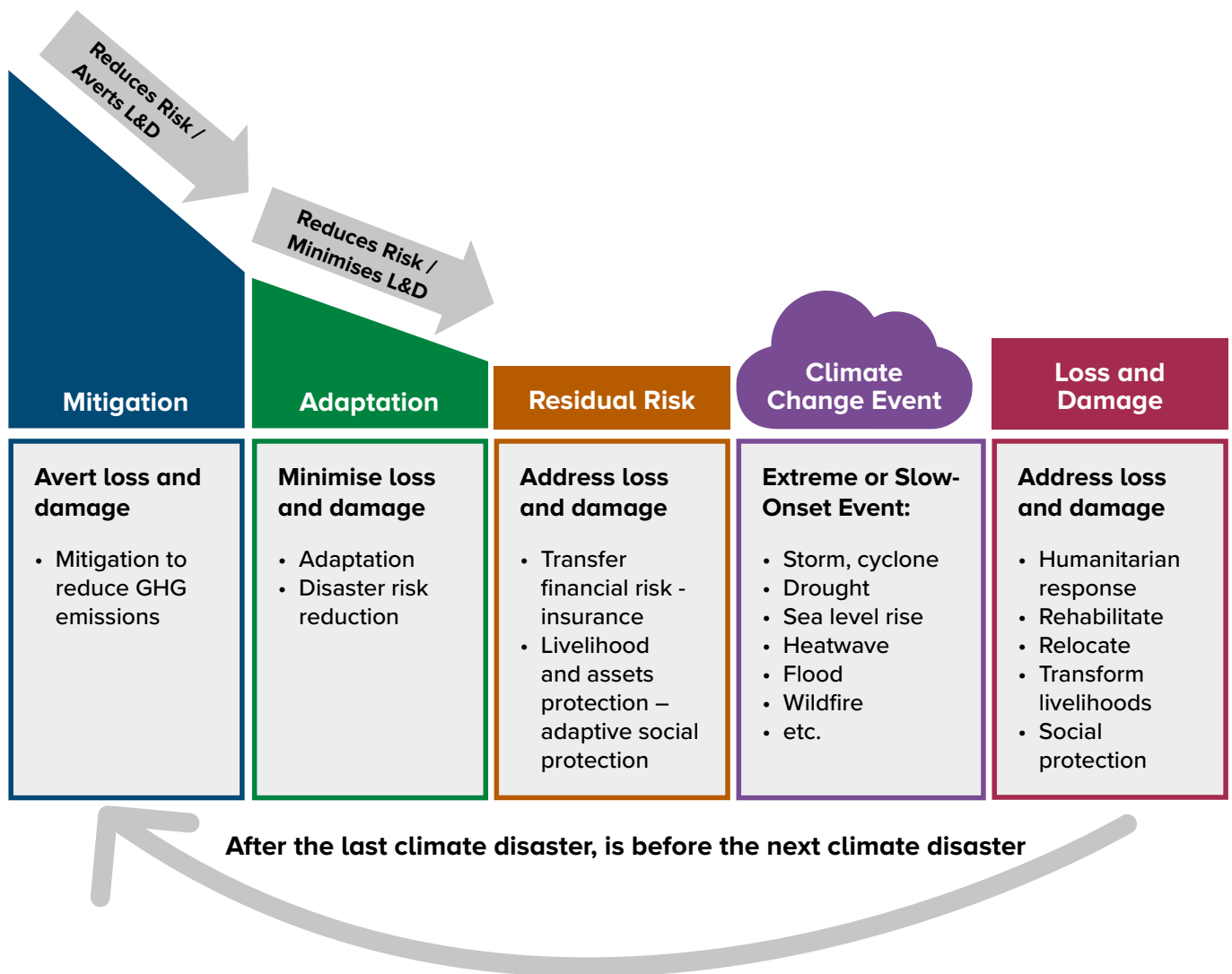
A climate change governance framework that brings together all institutional and non-state actors has been put in place. Demonstration projects are being implemented that contribute to the management of loss and damage through territorial development planning.

- The plan of how to address loss and damage included the reforestation of the Malka forest with the establishment of an experimental perimeter of 10 hectares to reconstitute lost plant species.
- Improved cook-stoves were distributed to women to reduce use of scarce wood and to mitigate carbon dioxide emissions from old stoves.
- Training and support for community resilience has also been carried out.
- The adaptive capacities of populations are being strengthened by communication and training for behaviour change.
- Access to climate finance is a challenge. Financial support is needed to be able to address the loss and damage suffered by the ecosystems and vulnerable communities of Gossas.

Similar to the CCCF case study from Kenya, the territorial planning by the Conseil départemental de Gossas, Sénégal, seeks to integrate measures to address climate risks and impacts (and thereby loss and damage) into local development plans and programmes. This type of technical, administrative and political decision-making process agreed with social, economic, political and technical actors for sustainable land-use and management of natural resources is more common in francophone African countries and Latin America (where it is referred to as

‘ordenamiento territorial’). While previously territorial planning has encompassed issues related to low carbon production systems; urban development; watershed and rangeland development; forest conservation; and, water resources management. The pressing need now is to accommodate the loss and damage needs of climate vulnerable populations and this will force the issue onto the territorial planning agenda. The experience of the Conseil départemental de Gossas is very interesting as a pioneer of what many local authorities will need to take up.

Figure 2: A continuum of measures to avert, minimise and address loss and damage⁷¹



71 Diagram by Julie-Anne Richards, <https://www.lossanddamagecollaboration.org/stories-op/how-does-loss-and-damage-intersect-with-climate-change-adaptation-drr-and-humanitarian-assistance>

A continuum of measures to avert, minimise and address loss and damage is presented in Figure 2. These measures include disaster preparedness and response measures delivered before and immediately after a shock, along with recovery, rehabilitation and post-shock resilience building. These measures intersect with development and humanitarian activities and need to be complemented by long-term adaptive measures to address cumulative risks.

The continuum demonstrates how averting loss and damage is achieved through climate mitigation measures to reduce GHGs. It also shows that adaptation action can be used to minimise the impacts of climate hazards that cause loss and damage. Finally, the continuum indicates that addressing loss and damage involves delivering measures to manage residual risks (those not averted through mitigation, and not adapted to) including transfer of financial risks, livelihood support and asset protection; and, measures to address the impacts of extreme and slow onset events including humanitarian response, rehabilitation, relocation, transforming

livelihoods and social protection. Under this framing climate adaptation and disaster risk reduction fall outwith what is considered to be addressing loss and damage.

3.2.3 Social Protection

In Pakistan following the recent floods the Federal Minister for Poverty Alleviation and Social Security, Shazia Marri, stated that adaptive social protection strategies would be further enhanced there. As elsewhere, Pakistan has the opportunity to integrate shock responsive elements into existing social protection systems – namely the very large Benazir Income Support Programme. In Mozambique, in order to better address the range of impacts from flooding and cyclones the Government is bringing together the national disasters management agency (Instituto Nacional de Gestão de Calamidades, INGC), the Ministry responsible for delivering social protection and local authorities to deliver sequenced measures that seek to protect the poorest people (those eligible for social protection) from what are in effect climate losses and damages.⁷²

Case study 16:

Anticipatory action plans (AAPs) against drought for at-risk communities in the Somali region of Ethiopia – WFP



Woman sitting in front of a tree smiling wearing a blue head dress. White cow laying down in background. Credit: WFP/Claire Neville

This programme helps to avert and minimise loss and damage by reducing the impact of drought on food security and livelihoods of the most vulnerable populations through

scaled-up anticipatory actions. The project forecasts and triggers for anticipatory action plans (AAPs) against drought. The AAPs serve to bolster national and international response capacities before and during drought shocks, and to reduce the overall impact, recovery time and costs associated with responding to drought impacts on agriculture and food security. The activities aim to strengthen the government's capacities to support planning and decision-making at both national and sub-national levels for anticipatory action and better management of climate risks.

To mitigate the impacts of predictable hazards like droughts, WFP is supporting the government in the Somali region of Ethiopia to develop forecasts and early warning alerts that trigger AAPs before droughts occur.

Implementation is coordinated by the Somali Region Disaster Risk Management Bureau, supported by the National Meteorological Authority and Mercy Corps. The Somali Micro-Finance Institute is the financial service provider. The anticipatory actions targeted the beneficiaries of the SIIPE project in Somali Region (see case study 6). The households were selected using the following criteria:

i) pastoralists/agro-pastoralists that were participating in the government's productive safety net programme; ii) owned five to 11 livestock units; and were iii) members of female-headed households.

In 2021, ahead of a predicted drought, WFP and partners triggered the AAP in two districts of the Somali region, Dollo Ado and

Bokolomayo, between May and July. This included dissemination of early warning information to 10,000 households and provision of cash transfers to 2,925 households.

To measure impact, a quasi-experimental design approach was deployed. The comparison group is a counterfactual of what would have been the outcomes if the anticipatory actions had not been implemented. A mixed research design using quantitative and qualitative information was utilised to document the impacts of the two anticipatory actions. Findings were then triangulated through discussions with stakeholders, focus group discussion and in an after-action workshop. The results suggest that the provision of early warning messages and cash transfers complemented each other and were effective at averting and minimising climate-induced losses and damages by preventing the worst impacts of forecast drought during the March-April-May rainy season in 2021.

The anticipatory actions to at-risk communities approach developed by WFP seeks to strengthen local to national systems in drought-affected largely pastoral areas. This approach operates in concert with social protection measures that are also relevant to addressing loss and damage. Support for the sustainability of anticipatory action systems is being maintained by WFP in close collaboration and through capacity strengthening of national governments. Support includes the development of drought early warning systems. To scale-up the implementation of anticipatory action programmes, it is necessary to draw on flexible, coordinated, predictable and pre-arranged financing for anticipatory actions and early warning systems, as well as for capacity-strengthening efforts and technical support. This would improve locally led efforts and related evidence generation.

3.2.4 Addressing loss and damage for climate displaced communities

The Peninsular Principles⁷³ on climate displacement within states centre the idea that, “processes caused or exacerbated by climate change have and will continue to contribute to displacement of populations resulting in the erosion of the rights of those affected, in particular vulnerable and marginalised groups, the loss of assets, housing, land, property and livelihoods, and the further loss of cultural, customary and/or spiritual identity.” In doing so the Peninsular Principles, adopted in Kiribati a decade ago, recognise that “voluntary and involuntary relocation often result in the violation of human rights, impoverishment, social fragmentation and other negative consequences, and recognising the imperative to avoid such outcomes.” While this comprehensive

73 <https://www.displacementsolutions.org/peninsula-principles>

framework (founded upon principles of international law, human rights obligations and good practice) respects the rights of climate displaced people, being a normative framework it does not directly address non-

economic losses and damages nor the curative or other measures necessary to address them, more details on which can be found in Section 4.

Case study 17:

Redirecting involuntary migration by adopting alternative skills to counter loss and damage, Bangladesh – Helvetas Swiss Intercooperation



Alternative livelihoods for migrants in Bangladesh. Credit: Helvetas Swiss Intercooperation

Extreme weather events and climatic trends bring adverse repercussions. In Bangladesh these include saline intrusion, prolonged flood periods and tidal surge in the southwest coastal belt. These climate impacts reduce agricultural yields, cause loss of habitat, and lead to involuntary relocations by affected people. Local inhabitants are shifting into other informal sectors away from traditional farming. They often do not have the technical knowledge necessary and many return from the big cities empty-handed.

The project facilitated access to alternative livelihood options for people facing loss of livelihoods due to climate induced migration, through apprenticeships and technical skills development in order to gain better access

to the local job market. The intervention also aimed to inform people's decision-making with regard to internal migration.

The intervention was targeted at potential climate migrants in Khulna and Bagerhat areas and was developed in consultation with local partners, climate vulnerable communities, and the Helvetas team.

Context analysis was conducted and included the identification of victims of climatic loss and damage (loss of livelihood, home, life, etc.) and potential climate migrants (prioritising youth and women). Options for informal jobs are limited and income is minimal in the project regions. The mapping of local employers and creating connections with the labour market should

be considered when repeating this intervention in other regions. Training options relevant for the local job market were explored. The traineeship is for three months and involves a mentor and mentee. Dedicated time and concentration from both mentee and mentor are required to build a successful formal relationship. Before the scheme, men quite often left their wives alone at home while they sought better jobs in cities. Those left behind were often in less safe circumstances both socially and financially. The skills development work can negate the

economic imperative to migrate as well as reducing the gendered impacts by offering women opportunities to develop skills alongside men. To date around 40 people have started the training. To monitor progress, a database has been initiated and periodical follow-up is done.

Identifying avoidable loss and damage and supporting adaptation strategies aimed at reducing climate migration is context-specific, but this approach on skills training is transferable and replicable.

The loss of traditional livelihoods has impacted many aspects of life for vulnerable communities including simply employment. There is now the need for new skills acquisition, innovations in livelihood activities and new jobs. The apprenticeship intervention by Helvetas is a small contribution but it is based upon sensitive needs assessment.

Addressing loss and damage in these coastal regions of Bangladesh where destructive storm surges are on the increase is difficult. Determining loss and damage needs in such places demonstrates the demand for transformative response measures that can reduce exposure and increase adaptive capacity of the people affected.

Case study 18:

The Loss and Damage Youth Grant-making Council

Young people are often excluded or marginalised from decision making processes in the climate arena even though they constitute the majority of global population and will be most affected by the impacts of the climate crisis.

To close the gap of youth-led climate finance in addressing loss and damage and to provide an opportunity for youth to engage in how loss and damage funding should be allocated, the Loss and Damage Youth Coalition and the Climate Justice Resilience Fund with funding from the Scottish Government, created a participatory youth board to award 11 loss and damage grants

and to shift power in decision making processes toward youth representatives.

The Loss and Damage Youth Grant-making Council is made up of 11 youth leaders from global south countries with experience in grassroots action, policy advocacy and project implementation related to loss and damage. The board was mandated with developing the application guidelines and determining criteria for awarding grants under the guidance of the CJRF. They also led on developing a call for applications, reviewing applications, selecting grantees and disbursing the funds.

The council developed an open call for youth organisations to apply for ten small grants and one large grant. Eligible activities included addressing loss and damage in different contexts such as restoration of houses and infrastructure, relocating affected communities and addressing loss of cultural heritage, community knowledge, and natural heritage. A total of 245 applications were received (83 large grant applications, 162 small grant applications). The winners of the grants were announced and the council is in the process of disbursing the funds.⁷⁴

So far, the grant-making council have identified the following lessons:

- Young people require financial support to implement solutions on the ground that could have a long-term impact.
- The 245 applications received reflected gender imbalances as most of the initiatives proposed were led by men. The grant-making council should develop particular efforts to fund and address women's engagement and leadership with more direct support to women-led initiatives.

- Advocacy for youth to have an important role in decision-making is needed. Funders and donors supporting ways to address loss and damage should include youth in the process as they are impacted the most yet have been largely excluded.
- The concept of loss and damage is broad and therefore, there is not a universal definition for everyone to adopt on what projects or actions address loss and damage. On one hand, this provides the opportunity to have pluralism in the initiatives and approaches, but from another side stakeholders can lose focus on what an action for loss and damage is and confuse it with other purposes.
- English could be a barrier for applications from some regions. Although the grant-making council prepared the guidelines for call for applications in different languages such as English, Swahili and Spanish, more needs to be done to increase applications from people of other languages and from regions where English literacy is low.

This radical example of delegated grant-making to youth representatives of the Loss and Damage Youth Grant-making Council is a signpost for the near-term future of ways to address loss and damage. This pioneering initiative will be of interest to many funding agencies and organisations that act as channels for climate finance.

3.2.5 Discussion

The growing number of dedicated loss and damage interventions offer several useful precedents from which to draw useful strategies and tactics. Delivery requires consistent and continuous investment as escalating climate

impacts drive increasing exposure to loss and damage. Lessons in channelling finance to locally defined and locally led measures have been learned in other areas of climate action⁷⁵ and humanitarian response, and can be incorporated into loss and damage interventions.

Synergies between the different ways of addressing loss and damage need to be explored through implementation processes that are designed to optimise synchrony across these elements. Oversight by accountable public bodies will be required. Learning so far shows that sub-national authorities, where

74 More info on the selected project can be find here: <https://ldyouth.org/2022/12/21/the-loss-and-damage-grantmaking-council-announces-the-winners-of-the-loss-and-damage-grant/>

75 <https://www.iied.org/money-where-it-matters-local-finance-implement-sustainable-development-goals-paris-agreement>

governance and decision making is accountable to citizens and where strong public finance management capacity exists, are well placed to coordinate the design and delivery of loss and damage interventions. Where there is alignment of policy and purpose, collaboration between governmental and non-governmental organisations is preferable.

The case studies discussed in Section 2 and here in Section 3 show that different approaches to address loss and damage are

evolving. Part of that evolution is about learning what makes approaches effective and Table 3 shows an assessment of this. The elements of approach identified in the table are those used to structure Sections 2 and 3 of this report, plus monitoring, evaluation and learning, and achieving long term resilience. Accountability and feedback loops, Access, and Equality, inclusion and diversity are those attributes that make approaches effective. The sub-cells of Table 3 describe how those attributes are achieved in each element of approach.

Table 3 Ways to achieve key attributes across different components of loss and damage

	Accountability and feedback loops	Access	Equality, inclusion and diversity
Mobilizing finance	<ul style="list-style-type: none"> NDCs to demonstrate needs L&D recognised and analysed in GST 	<ul style="list-style-type: none"> Untied grants Solidarity funds 	<ul style="list-style-type: none"> Untied grants available to grassroots organisations
Distributing finance	<ul style="list-style-type: none"> NDCs to demonstrate needs 	<ul style="list-style-type: none"> Ease of reach-up and draw-down a priority Representative, inclusive and diverse local organisations priority for access 	<ul style="list-style-type: none"> Equity in processes to draw down finance
Assessing needs	<ul style="list-style-type: none"> The results of needs assessments should be owned by the people with the needs 	<ul style="list-style-type: none"> Participative tools Recognition of full range of non-economic loss and damage 	<ul style="list-style-type: none"> Full recognition of social diversity and differentiated needs
Delivering interventions	<ul style="list-style-type: none"> Delivery partners accountable to those facing the losses and damages Participative budgeting and rendering of accounts 	<ul style="list-style-type: none"> Local and community level Community owned and locally led Skills development, livelihoods and enterprise development Recovery & rehabilitation supported Curative measures available 	<ul style="list-style-type: none"> Inclusive approaches to recovery, rehabilitation, etc. Gender transformative approaches to addressing L&D
Monitoring, evaluation & learning (MEL)	<ul style="list-style-type: none"> Crowd-sourced data & information on implementation and outcomes Rating of delivery from people in localities upwards to funders 	<ul style="list-style-type: none"> Build on existing indicators Accessible and co-developed criteria 	<ul style="list-style-type: none"> MEL co-developed by local people, civil society Gender and intersectionality oriented MEL
Achieving long term resilience	<ul style="list-style-type: none"> Climate impacts causing L&D and outcomes of addressing L&D recognised and analysed in GST L&D factored into SDG achievement analysis 	<ul style="list-style-type: none"> Outcome to impact level assessments Social learning integrated into MEL cycles 	<ul style="list-style-type: none"> Assessment and learning from evaluations organised as an inclusive social learning process

4 Non-economic Loss and Damage

This section considers what non-economic loss and damage is and provides a summary of recent evidence-based research on how it can be assessed and addressed. A selection of case studies are used to expand this summary and exemplify types of loss and of action to address. This is followed by a discussion of possible next steps for addressing non-economic loss and damage.

4.1 Concepts

Received wisdom on the nature of non-economic loss and damage largely stems

from technical experts with Global North perspectives. This conceptual basis does not always accurately reflect the experience of people at the climate frontline. Affected communities and societies seldom, if ever, perceive climate impacts as ‘non-economic’ or ‘economic’.⁷⁶ This delineation ignores interconnectedness and how economic impacts can cascade into non-economic impacts and vice versa.⁷⁷ Box 3 summarises how non-economic loss and damage is incorporated into the UNFCCC.

Box 3 Non-economic loss and damage in the UNFCCC

An influential technical paper commissioned by the UNFCCC in 2013 focused on the different “types” of non-economic loss.⁷⁸ The ways this paper proposed to assess and address non-economic loss are still prominent within current non-economic loss and damage discourse. According to this conceptual framework, what is prone to non-economic loss includes items “that are not commonly traded in markets”. Moreover, the technical paper proposes a set of main types of non-economic loss and damage that include: life; health; human mobility; territory; cultural heritage; indigenous knowledge; biodiversity; and ecosystems.

At COP18 in Doha in 2012, non-economic loss was included as one of the action areas for the Warsaw International Mechanism for Loss and Damage.^{79, 80} While the UNFCCC adopted the terminology *non-economic loss*, practitioners and researchers have preferred to work on *non-economic loss and damage*. The inclusion of damage is important as non-economic aspects can sustain damage which can be recoverable. An ecosystem, for example, can be restored (close) to its previous state.

76 Pill, 2021

77 Westoby, 2021 and <https://www.icccad.net/blog/values-based-understanding-loss-and-damage/>

78 <http://unfccc.int/resource/docs/2013/tp/02.pdf>

79 <https://odi.org/en/insights/climate-induced-non-economic-loss-and-damage-fundamental-but-long-neglected/>

80 <https://www.econstor.eu/handle/10419/199466>

Conceptual understanding of the types of non-economic loss and damage have been scrutinised in recent literature. Pill⁸¹ finds that these typologies are not reflective of the broad range of non-economic impacts that exist; Boyd et al.⁸² propose that non-economic losses and damages are potentially infinite as they are dependent on diverse beliefs and worldviews. In an attempt to cohere existing typologies, Serdeczny et al.⁸³ combine the previous approaches and propose an elaborate conceptual framework containing 30 diverse items distributed among ten meta-categories.

Various characteristics of non-economic loss and damage are important in assessing and addressing actions. First, non-economic losses and damages are incommensurable⁸⁴ with

economic ones.⁸⁵ Moreover, the value assigned to non-economic losses and damages relies on various personal, environmental, 'cultural and socio-economic factors.⁸⁶ For example, Hindu communities can value cows more than people following other religions due to the animal's high cultural value within Hinduism. These characteristics complicate quantifying, valuing and monetising non-economic losses and damages.

To avoid the technical and/or north-centric approaches described above, researchers in Bangladesh proposed applying locally led approaches to establish local values for things at risk from climate change.⁸⁷ Case study 19 explains how this approach was conducted.

Case study 19:

A values-based approach to loss and damage in Bangladesh – ICCCAD & IIED

During a study in north-central Bangladesh on loss and damage, researchers applied a values-based approach. The process starts with the concept of lived values to explore what affected people and societies value most in their daily lives and in the places where they stay.

Together with participants, this data is condensed into a set of local values to guide the assessment. The researchers asked participants to rate the importance of each value on a five-point Likert scale to assess how different groups value various aspects of life. The younger generation values education more, while the elderly gave

more priority to health, and women gave more importance to mental health than men did.

This assessment unifies economic and non-economic impacts by assessing both, allowing a more complete reflection of on-the-ground experiences. Thus, a house provides more than shelter: it is a place of memories, hospitality, and safety; a school signifies striving for a better future and knowledge creation; and income allows parents to provide for their families in different ways. Participants in the research emphasised the value of family, religion, nature, education, and health in their lives.

81 Pill, 2022

82 Boyd et al., 2022

83 Serdeczny et al., 2016

84 Incommensurability means 'to have no common measure'

85 <https://www.econstor.eu/handle/10419/199466>

86 <https://www.econstor.eu/handle/10419/199466>

87 <https://www.icccad.net/blog/values-based-understanding-loss-and-damage/>

The approach of using predetermined categories in an assessment of loss and damage could unintentionally have the effect of constraining communities' ability to articulate how they experience climate impacts. However, by doing this in a locally led way, the assessment approach will be tailored to the local context and provide flexibility for respondents to articulate the losses and damages using their own language. Moreover, it gives the community the power to determine what researchers will assess. Lastly, a values-based approach to loss and damage highlights the importance of non-economic climate impacts.

4.2 Evidence from research

Non-economic loss and damage has been explored through case studies that either analyse a range of types, or focus on specific aspects, such as biodiversity loss, displacement, or mental health impacts. Most case studies aim to assess how people experience non-economic loss and damage. Some specifically focus on a particular dimension, such as gender and displacement.

Such case studies repeatedly show that experience of non-economic losses and damages is context-specific. In New Guinea, climate change threatens biocultural heritage by causing local extinctions of wild foods⁸⁸ and fisherman in the Caribbean face psychological distress at the destruction of their fishing equipment.⁸⁹ They also show that climate change impacts can differ within communities. For example, girls in Bangladesh can be forced into arranged marriages earlier due to income loss and food insecurity resulting from climate change⁹⁰ and low-income households in Japan face problems in accessing education for their

children.⁹¹ However, evidence-based research on non-economic losses and damages rarely looks at intersectional vulnerability, instead defining people by single metrics, such as age, or gender. There is little focus on pre-existing and intersectional vulnerability in the overall loss and damage discourse.⁹²

4.3 Different types of non-economic loss and damage

Though not an exhaustive list, to demonstrate the complexity of conceptualising non-economic loss and damage and the variability and intersectionality of such impacts, three types of non-economic loss are considered here: biodiversity; displacement; and, mental health. The following case studies are used to exemplify these types: Losses and damages to ecosystem services in the Arctic Circle from ODI, Participatory Resource Allocation of Loss & Damage Funds in the Pacific Islands from Unitarian Universalist Service Committee, and Gender-based violence and mental health in Malawi – The Mary Robinson Centre for Climate Justice, Glasgow Caledonian University.

Biodiversity

Biodiversity means “the variability among living organisms from all sources, including, *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part”.⁹³ Loss and damage in terms of biodiversity can, for example, mean the disappearance of species and/or damage to ecosystems due to changing weather patterns. Reports assessing non-economic loss and damage often have a separate category for biodiversity and ecosystem services.⁹⁴ However,

88 McNamara et al., 2021

89 Pill, 2022

90 Ayeb-Karlsson, 2021

91 <https://www.apn-gcr.org/publication/priority-practices-for-addressing-non-economic-loss-and-damage-caused-by-typhoons-in-japan-case-study-of-nachikatsuura-town/>

92 Jackson et al., 2023

93 United Nations, 1992, p.3

94 Ecosystem services refers to ‘the benefits humans derive from ecosystems’ (MEA, 2005)

these assessments still focus on biodiversity in terms of utility; there are few assessments of the intrinsic value of biodiversity with regard to non-economic losses and damages.⁹⁵ Ecosystems and key elements of biodiversity are often of significant cultural value to indigenous people. Assessments of biodiversity loss only consider harm to people, leaving out how climate

change can cause losses and damage to, for example, animals, trees, and plants.⁹⁶ Thorough assessments of the intrinsic value of biodiversity and harm to the natural world are needed to get a complete picture of climate-related impacts and the effects of future policy. Case study 20 from ODI illustrates these issues.

Case study 20:

Losses and damages to ecosystem services in the Arctic Circle – ODI⁹⁷

Around 400,000 indigenous peoples live in the Arctic today, including the Sámi in Sápmi, which covers part of Norway, Sweden, Finland and Russia's Kola Peninsula; the Aleut, Yupik and Inuit in North America and Greenland; and the Nenets, Khanty, Evenk and Chukchi in Russia. While these communities have diverse cultures and histories, their ways of life have all been fundamentally shaped by their inhospitable natural environment. Most depend heavily on endemic species such as caribou, seals and whales, which provide food, clothing and fuel. Herding, hunting and fishing are also a source of identity and pride, enabling Arctic peoples to use traditional skills and provide for their communities.

Climate change jeopardises this way of life. Thinning and disappearing sea ice affects the Arctic people's ability to hunt seals and whales, while extreme weather events make hunting more dangerous. The Sámi have observed rising ocean temperatures which are shifting some fish stocks from warmer waters into the icy ecological niches to which Arctic species like whitefish and Arctic char have adapted, while ocean acidification is impacting marine species such as corals that make shells and skeletons from calcium

carbonate. Warmer temperatures lead to rain on snow, which thaws and freezes into ice and prevents reindeer from finding food underneath. On Qikiqtaaluk (Baffin Island), the Inuit have observed declining populations of hunted species such as caribou and narwhals.

While current and anticipated loss and damage to natural and cultural heritage has caused profound grief within Arctic indigenous communities, many are leading or contributing to strategies to avert, minimise and address such loss and damage. One strategy involves knowledge exchange among Arctic communities. In Canada, human activities such as logging have contributed to a long decline in some caribou species, while climate change means that moose are increasingly seen in the high elevation alpine tundra and subalpine forests that caribou prefer. The Nunatsiavut government is supporting workshops where First Nations hunters from the Northwest territories can train the Labrador Inuit in harvesting and processing moose. While the Labrador Inuit face a loss to part of their traditional diets and practices, the initiative will enable them to continue subsistence hunting for deer species – a pivotal part of their cultural heritage.

95 McShane, 2017

96 Jackson, 2023; McShane, 2017

97 Taken from [What do we have to lose? Understanding and responding to climate-induced loss and damage to cultural heritage | ODI: Think change](#)

Displacement

Extreme events, such as tropical cyclones, have caused widespread displacement in vulnerable regions such as small island developing states and in the Bay of Bengal.⁹⁸ Climate-induced displacement can lead to migration and can cause economic and non-economic losses and damages, such as a loss of culture, agency, or physical and mental health. For example, drought can impact fresh water supply and crop yield, causing people to migrate from villages to urban areas

to find alternative livelihood options.⁹⁹ This leads to them having to abandon their local language and culturally relevant places¹⁰⁰. In some cases, displacement can happen to complete populations. For example, the entire population of Ragged Island in the Bahamas was displaced as a result of Hurricane Irma in 2017.¹⁰¹ Displacement often means that people face new and possibly greater climate vulnerability as described in the CBF case study 5, and it imposes both economic and non-economic losses and damages.

Case study 21:

Participatory Resource Allocation of Loss & Damage Funds in the Pacific Islands, Unitarian Universalist Service Committee (UUSC)

The goal of this initiative led by UUSC and funded by the Scottish Government through the Climate Justice Resilience Fund is to model a community-led, participatory approach to fund ways of addressing loss and damage associated with climate-forced displacement.

UUSC worked with partners to design an in-person convening in Fiji that brought together frontline communities, grassroots organisations, and regional partners, with equitable representation and meaningful engagement of Pacific Island women, youths, and elders. Various types of civil society groups were included in the meeting e.g. traditional leaders, grassroots organisers, policy and legal advocates, storytellers and activists. Facilitation was

provided by the Pacific Climate Warriors, who helped shape the agenda and ensured that the gathering was grounded in traditional, place-based practices and context. There was ample time and space during the convening for participants to relax, restore, and re-connect. There was clarity about how decisions would be made; namely, that the initiatives to be funded would be selected by the communities and UUSC's grassroots partners.

Partners defined that success and impact should be measured through the experiences felt and shared by the communities. They noted that whether a project is successful or not takes time to evaluate, and that one indicator of success would be to secure a long-term funding stream.

98 Islam and Hasan, 2016

99 Jackson et al., 2022

100 <https://www.lossanddamagecollaboration.org/publication/passed-the-point-of-no-return-a-non-economic-loss-and-damage-explainer>

101 Thomas and Benjamin, 2021

At the conclusion of the convening, participants co-created and adopted an outcome statement committing to, among other things: continuous learning, sharing and collaboration; holding decision-makers accountable for sustained climate action; and prioritising loss and damage funds to support communities directly experiencing climate-induced loss and damage.

Projects selected for funding through this process included: piloting organic farming to promote food security and educate youth in Tuvalu; rebuilding water systems; developing an early warning system for climate-related disasters; protecting traditional knowledge through storytelling and intergenerational dialogue.

The convening reaffirmed that sustainably addressing loss and damage means centring the wisdom, experiences, and priorities of frontline communities. When frontline communities exercise their self-determination to respond to the climate crisis, their solutions are more likely to be successful than the solutions proposed by “experts” with less proximity to the problem.

Discussing funding of loss and damage through a non-economic and economic loss and damage framework was found unhelpful in this context. Because communities experience both impacts simultaneously, the distinction was foreign to them.

The Unitarian Universalist Service Committee firmly believe in the importance of devolving decision making on what and how to address loss and damage to the local level. Determining needs through consultative processes that are grounded in traditional, place-based practices and context have been used to understand the existential risks from climate induced loss and damage faced by Pacific island communities. This approach is akin to the participatory methods used by SCIAF and partners in Malawi (Case study 10) but adds a cultural dimension through the use of storytelling as a traditional way to share learning and understanding. The finding that the dichotomy of non-economic and economic loss and damage is not useful in this context resonates with the findings in Case study 19 from Bangladesh.

Mental health

Mental health is often referred to as mental or psychological well-being in reports on

non-economic loss and damage. Tschakert et al.¹⁰² refer to “a state of positive well-being contributing to mental health, life satisfaction, coping ability, and overall human well-being”. Loss and damage can be interpreted from the perspective of value (impacts on something valuable) or harm (impacts that cause harm).¹⁰³ Losing something of value or experiencing harm can have profound impacts on mental health. Therefore, mental health can be seen as an overarching aspect of loss and damage, it is always present when losses and damages occur. A study found that depression, anxiety, and post-traumatic stress are the most common mental health impacts related to climate change.¹⁰⁴ They also found this is particularly true for children, women, and residents of low-and middle-income countries. Mental health impacts can happen immediately, be delayed (e.g. post-traumatic stress), or even be transmitted to later generations.¹⁰⁵ Case study 4.3 provides further insights on this critical topic.

102 Tschakert et al., 2019, p. 63

103 McShane, 2017

104 Palinkas and Wong, 2020

105 Ciancioni et al., 2020

Case study 22:

Gender-based violence and mental health in Malawi – The Mary Robinson Centre for Climate Justice, Glasgow Caledonian University

This study aims to put the lived experiences of rural women in Malawi in the spotlight, co-identify approaches with a wide range of stakeholders, and provide recommendations to protect women from the mental health impacts of climate change whilst also addressing gender-based violence. The effects of climate change on gender-based violence and mental health are two of the most prolific yet least understood study areas due to a lack of evidence-based reports. Evidence is crucial to help in our understanding of the issues and rebuild the lives of the people most impacted by climate change. This project collaborates with Mzuzu University, Life Concern, and the Malawian Ministry of Health.

The team used a participatory approach, focussing on learning from grassroots experiences of climate change by women. This allowed them to connect to local perspectives and ambitions and identify potential approaches to people's needs. A gender equality officer was appointed to ensure gender equality across the project. Moreover, a wide range of experts in psycho-social counselling, gender-based violence, women's economic empowerment, and vulnerable populations was engaged. A mental health district nurse was available to

provide psychological support to participants during fieldwork. Additional funding was invested for post-project support.

The study resulted in a set of quantifiable indicators: the majority of those surveyed stated that weather changes affected their mental health and well-being, whilst only a small percentage had any coping strategies, and approximately two thirds were aware of gender-based violence in their community being exacerbated by climate change. All of the women took up the opportunity of counselling services offered by the project indicating that women urgently need support.

Quantifying evidence is vital for generating substantial documentation of non-economic loss and damage. However, there are few pre-existing and robust approaches to doing this. Moreover, building trust with communities, placing Indigenous voices at the heart of the process, and empowering women to take ownership in the design and development of practical solutions proved to be the key to success. Challenges in this process were building trust while making sure that processes were safeguarded and procedures followed at all times to ensure that no further distress was caused by having difficult conversations concerning mental health.

4.4 Addressing non-economic loss and damage

As demonstrated in the case studies and discussion above, non-economic loss and damage is highly context-specific and differentiated according to different people's circumstances and characteristics, making actions to address this form of loss and damage challenging. In this section ways to assess and to address non-economic loss and damage are explored using case study evidence from Bolivia and Bangladesh.

Assessing Needs

The UNFCCC¹⁰⁶ has proposed four approaches to measure non-economic loss: economic valuations, multi-criteria decision analysis, risk indices, and qualitative and semi-quantitative assessments. These methods have been applied in the analysis of case studies from different sources to greater or lesser extents. Qualitative assessments are most common. Quantitative approaches are also used, but they risk giving a reductionist view of non-economic losses and damages as they do not encapsulate the contextual factors that mediate climate impacts (Tschakert et al., 2019). Moreover, attempts to attach monetary value to non-economic losses and damages risk “commodifying incommensurable values, and ignoring those that cannot be costed, thereby undermining practices for recovery and renewal”.¹⁰⁷ Preston¹⁰⁸ argues that the UNFCCC's four proposed approaches all involve some form of implicit weighting by the experts or decision makers using them, giving external actors, rather than affected communities, a say in what counts and how much it counts.

Addressing Non-economic Loss and Damage

Addressing non-economic losses and damages means devising ways to address these impacts, having first assessed how different people are affected. There are different methods for this, and key lessons are identified here alongside options for further research and future interventions.

Non-economic losses and damages can be irreplaceable or replaceable. Irreplaceable items are those whose value is an “end” in itself, meaning that no other item or aspect of life can replace the loss. Irreplaceable losses can be partially addressed through compensation, such as offering alternative livelihoods to fishermen who lose their cultural fishing grounds. However, such payments cannot restore people's well-being if the losses are irreplaceable.¹⁰⁹ Serdeczny et al. recognise that acknowledging loss is critical in achieving recognition for societies facing irreplaceable losses.¹¹⁰ McNamara et al.¹¹¹ derived a list of 20 measures from peace studies, disaster studies, and approaches used by First Peoples which can address irreplaceable impacts by focussing on recovery, healing and maintaining people-ecology interactions. Their report shows that experts consider measures such as: education and training; documenting and recording traditional and local knowledge; engaging with the natural environment; community activities; and direct action and activism as the most useful ways of addressing these types of non-economic loss and damage.

Replaceable non-economic losses and damages also fulfil specific purposes. Ideally, these can be replaced by different means that serve a similar purpose¹¹² The intrinsic and cultural values of traditional fishing grounds

106 <http://unfccc.int/resource/docs/2013/tp/02.pdf>

107 Tschakert et al., 2017, p.3

108 Preston, 2017

109 Walliman-Heliman et al., 2019

110 Serdeczny et al., 2016, Non-economic loss and damage in the context of climate change: understanding the challenges, <https://www.econstor.eu/handle/10419/199466>

111 McNamara et al., 2021b

112 Walliman-Heliman et al., 2019

cannot be replaced once lost. Ecosystems are often valued because they provide resources, such as herbal medication. Thus, a response to the loss of ecosystems can be providing alternative options of medication but the traditional knowledge associated with herbal remedies may be lost.¹¹³

Non-economic losses and damages are highly differentiated – the associated significance

varies between people, communities and regions. For example, in Bolivia, women have fewer livelihood options, meaning that measures aiming to reduce internal migration and preserve cultural heritage should be different for men and women. Measures that address loss and damage should take account of these differences. Case study 23 from WFP explains this issue further.

Case study 23:

Preserving Indigenous people's cultural heritage through resilience building – World Food Programme (WFP)



Woman from the Uru Murato community in Bolivia engaged in handicrafts. Credit: WFP/Elio Rujano

WFP is currently implementing a project to address the climate vulnerability of the Indigenous Uru Murato community who live in Bolivia. The aim is to diversify livelihood opportunities and improve access to water resources, which helps to safeguard and preserve their culture and traditions.

The Uru Murato reside in the altiplano (highlands) of Bolivia on the shores of Lake Poopó, which used to be the country's second largest lake. Lake Poopó is a significant part of the communities' cultural

identity. Many of the communities' traditional livelihoods such as fishing and making handicrafts from aquatic plants depend on the natural resources of the lake. However, drought intensified by climate change and water management issues is leading to reduced water levels in Lake Poopó, impacting the Uru Murato's livelihood options and food security, and forcing them to migrate to urban centres. This threatens their cultural heritage, including the potential loss of their language.

In the past five years, WFP has helped members of the Uru Murato community with food assistance. The project has installed nearly 30 kilometres of pipelines to provide the communities with water, four storage tanks, 31 photovoltaic pumps, over ten facilities for small animal husbandry and vegetable production, and two handicraft centres. In addition, the project supported women artisans with technical training on small business management practices and has facilitated their participation in local and national markets to generate income and showcase their culture to a broader audience. This project was developed with the Uru Murato through a participatory and equitable consultative process respecting their norms and traditions and jointly identifying the differentiated and everyday needs, interests and priorities of men, women, and youth.

The activities have contributed to a reduction of migration and, therefore, cultural preservation. At this point, the most crucial lesson is that programmes must be designed and developed in consultation with community members in a way that

respects their ancestral knowledge and norms in the process. Moreover, language constraints can also pose a challenge. Thus, it is critical to have a person who can speak the local language and translate during community consultations to ensure the inclusion of older community members. In addition, to implement such a project successfully, it is essential to address gender inequalities.

Through the community consultations, it became clear that there was an unequal opportunity gap between men's and women's livelihood options, with many women dedicating their time to household chores and herding camels. Moreover, many adult women are not formally educated, hampering their access to better income-generation opportunities. It is, therefore, essential to include project activities that directly target and are inclusive of women. In addition, the implementation of this project required relationship and trust building with both the Uru Murato and traditional government authorities, which is crucial for project replication.

Some non-economic aspects of people's lives are closely connected to economic elements. For example, economic stability is closely connected to mental stress.¹¹⁴ Therefore, restoring a household's economic status after a hazard such as a flood or drought can alleviate some of the mental stress involved. An example is climate impacts on the Puja, a Hindu ritual where flowers and fruits are offered to holy spirits. Hindus in Bangladesh are facing complications holding the Puja as increased salinity levels in ground water impairs their ability to grow fruits and flowers.

Many now must buy these items at the market to keep up their religious practices.¹¹⁵ This example shows that some non-economic losses and damages can be addressed with financial compensation. However, this measure will rarely fully address the impact. For example, compensating only the market price of fruit and flowers for the Puja does not restore the lost value that Hindus attach to the practice of growing fruits and holy flowers themselves. Case study 4.5 from ICCCAD and IIED provides further information on this area.

114 Palinkas and Wong, 2020

115 <https://www.iied.org/21161iied>

Case study 24:

Local responses to climate-related non-economic losses and damages – Bangladesh, ICCAD and IIED



Woman crosses makeshift bridge in flooded Bangladesh. Credit: ICCAD

People in coastal Bangladesh are exposed to various climate-related hazards. Sudden onset events such as cyclone Sidr in 2007, Aila in 2009, and Amphan in 2020 caused widespread losses and damages, such as the loss of houses and prolonged waterlogging. However, slow onset processes such as increased temperature, rising salinity levels, and changing rainfall patterns significantly impact the livelihood of communities already living in subsistence conditions.

The study was guided by ten pre-determined types of non-economic loss and damage derived from the literature. The structure of the study is in two parts. First, it explored what non-economic losses and damages people in coastal Bangladesh experience.

Second, it examined existing local responses to these impacts. The study focuses on local-level experiences by conducting interviews and group discussions with affected communities, primarily with housewives, day labourers, and small-scale farmers. Participants were Muslim, Hindu and Munda.

Women in the research area face a wider range of non-economic losses and damages and experience some to a greater extent, especially regarding mental and physical health. Causes for this include household responsibilities and substantial exposure to saline water, which can cause skin disease and gynaecological issues. Impacts also differed per religion. Munda people cannot find culturally relevant food, the disappearance of cows creates problems regarding Hindu rituals, and Muslims cannot always attend the mosque or madrassa (Quran education).

Affected communities have formulated coping responses to almost every impact. For example, they pray when facing mental stress and replant trees lost due to cyclones. However, these responses rarely restore these aspects of their lives to previous levels as they need more adaptive capacities, such as financial resources or access to public services. Moreover, coping response mechanisms often come with additional cost, putting an additional financial burden on people already living in subsistence conditions. Interventions to address loss and damage could improve this by providing financial resources to enhance local responses.

4.5 Key Findings

Non-economic losses and damages result from complex human-environment interactions and are influenced by people's experiences and perceptions. This means that people living in different socio-economic situations and holding different belief systems will experience and perceive non-economic loss and damage differently. It also means that some groups will be more exposed and therefore vulnerable to impacts of slow and sudden onset hazards.

Previous evidence-based studies on non-economic loss and damage have not focused on vulnerability and, instead, often take a normative perspective concerning communities or societies. Moreover, the few studies that focus on differentiated vulnerabilities do not account for intersectional experiences of non-economic loss and damage. However, it is possible to disentangle the drivers of vulnerability and assess who face most losses and damages.¹¹⁶ Examining and addressing the root causes of vulnerability is not only crucial to minimise future loss and damage, it can also be part of developing compensatory measures to achieve just, fair, and effective outcomes that reduce inequalities and vulnerabilities on a long-term basis.

Investigation into non-economic loss and damage largely focuses on *assessing* the *different impacts* that people experience. This research is crucial due to the potentially infinite ways this experience happens, especially in regions where there have been few studies explicitly focusing on non-economic loss and damage. Therefore, future research should

increase its focus on the *needs* of affected societies with regard to non-economic losses and damages to ensure that funds will be utilised effectively and fairly. This means engaging with affected societies to map their experiences and to find solutions by gathering their perspectives on addressing these complex, subjective, and sometimes irreplaceable losses and damages.

Letting go of pre-determined typologies of non-economic loss and, instead, adopting a locally led approach is one way of helping outsiders to understand local peoples' experience and insights. Affected societies can establish the parameters that studies focus on and thereby have a voice in process, thereby transferring the power from decision-makers to affected societies. Another way of doing this is applying narrative and first-person storytelling that can give those affected the chance to reveal underlying worldviews that shape their perspective on non-economic loss and damage.¹¹⁷ Moreover, assessments should start to include impacts on the natural world to adequately report the range of impacts resulting from climatic hazards.

Implementation strategies that are participatory, use intersectional gender transformative methods, shift decision-making power to local levels, and are context-specific are not new and they are beginning to frame climate justice and international development best practice. This is particularly relevant for non-economic loss and damage as the case studies above have illustrated.

116 Boyd et al., 2022

117 Preston, 2017

5 Analysis of the Loss and Damage Landscape

This section analyses the landscape of approaches and institutions being used to address loss and damage, alongside a mapping exercise to identify gaps. The analysis builds on evidence from case studies, current research and grey literature to present a typology of the different measures to address loss and damage. This evidence is directly relevant to the work of the Transitional Committee for Loss and Damage of the UNFCCC.¹¹⁸

While a diverse institutional landscape to address loss and damage is emerging, finance is the main determining factor of how this landscape is, and will be, shaped. As loss and damage is not recognised in the Rio markers system (OECD-DAC) for overseas development assistance, and no programmatic budget assessments from MDBs and others on loss and damage investments have been published, it is not possible to say with any precision what proportion of climate finance is currently being used to address loss and damage.

Analysis conducted by Climate Analytics for Oxfam estimates that by 2030, developing countries will need more than USD 400bn annually to address losses and damages.¹¹⁹ This far exceeds what is currently available, and is also well above the separate USD 100bn per annum agreed under the UNFCCC for climate mitigation and adaptation in developing countries.¹²⁰

Of the loss and damage pledges made so far (as summarised in Table 1 of Section 2.1.1), the vast majority are for investments in climate vulnerable countries. Most are for disaster risk financing and insurance, and smaller amounts have been allocated for storm warning and other preventive measures, with further small amounts going to research and civil society endeavours.

Alongside the sources of finance, five further categorisations are considered in analysing and mapping the different ways in which loss and damage is being addressed. These are visualised in Figure 3.

First, approaches emerge as a response to different types of current climate impacts and future risks. These risks are broadly categorised as being either sudden (e.g. storms and cyclones) or slow onset (e.g. droughts and sea level rise) events.

Second, as highlighted in Section 4, there are different types of losses and damages. The UNFCCC has proposed two broad types – economic and non-economic. These two categories were set by economists and do not necessarily align with the ways in which people at the frontline of climate change see and feel its impacts. A more holistic appreciation of what is meant by non-economic (or what cannot easily be traded) could include human, territorial, ecological and socio-cultural impacts.

118 <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/transitional-committee>

119 <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/582427/rr-impacts-low-aggregate-indcs-ambition-251115-en.pdf;jsessionid=C2BF26E9CF0705630671F3821B7C7AE9?sequence=1>

120 <https://www.oecd.org/climate-change/finance-usd-100-billion-goal/#:~:text=Climate%20Finance%20and%20the%20USD%20100%20Billion%20Goal.,Paris%2C%20it%20was%20reiterated%20and%20extended%20to%202025>

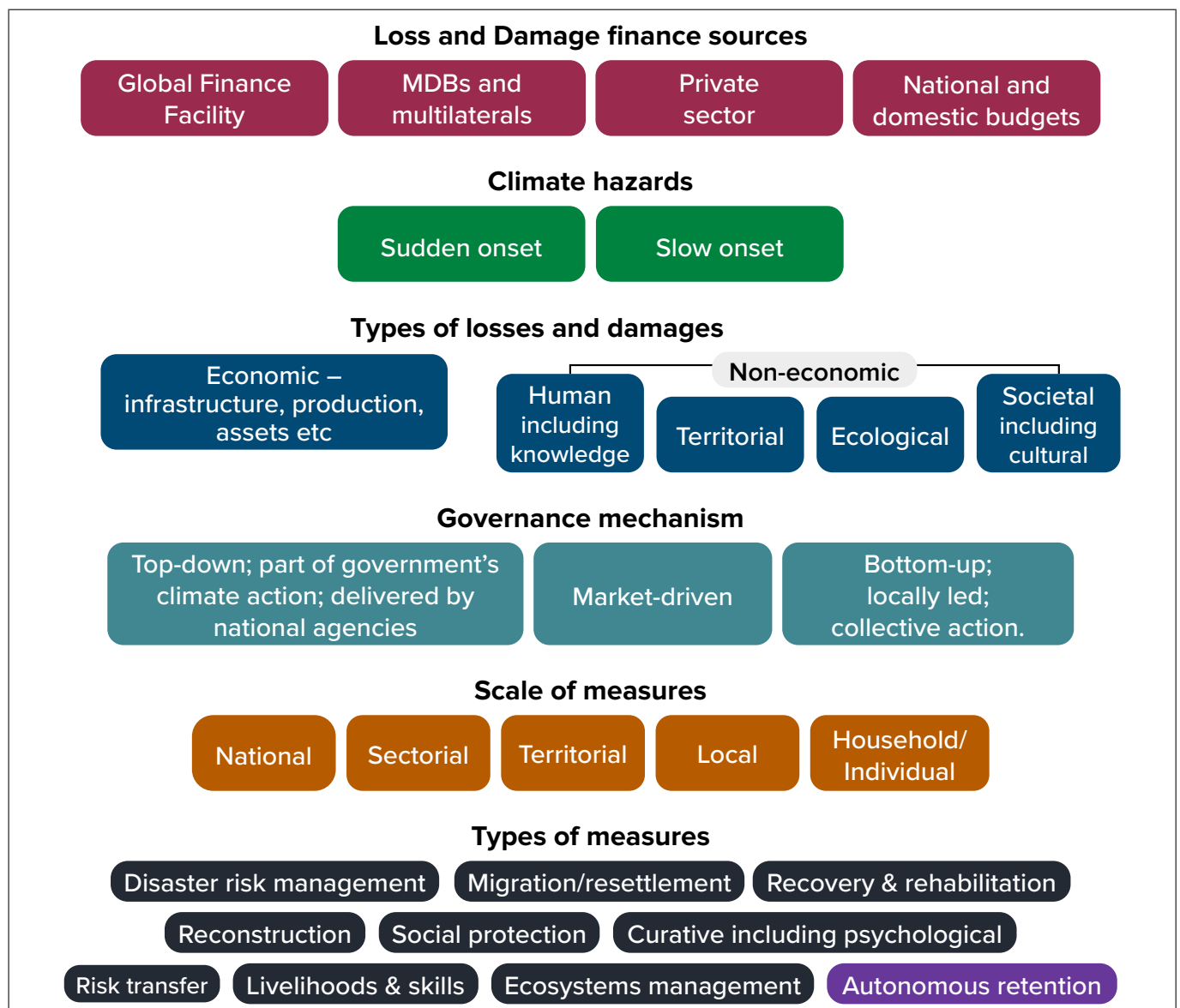
Third, the governance system used to deliver loss and damage measures is also important. There are broadly three types: 1) top-down (i.e. government-defined and delivered by national agencies); 2) market-driven (i.e. with different degrees of regulation by government); 3) bottom-up (i.e. locally led and collective action processes). All three of these governance systems can involve multilateral and non-governmental agencies that seek to strengthen and connect actions across all three governance types listed.

Fourth, measures to address loss and damage vary across dimensions of scale (regional,

national, community, household, or individual), and can also be managed at different levels by sector and coverage (e.g. focusing on the most poor as in the case of adaptive social protection). Coverage across scales is important from the perspective of ways of addressing loss and damage reaching the furthest behind and most marginalised.

The final categorisation identifies and groups the measures themselves; using information from the case studies and from a subsequent review of literature and evidence, the next subsection proposes an initial typology which fits into the final layer of Figure 3.

Figure 3: Elements to be considered in mapping loss and damage measures



5.1 Towards a typology of measures to address loss and damage

In outlining a typology of measures to address loss and damage, it is not intended to set a fixed frame of reference as a classification regime or taxonomy, but to enable a systematic mapping of measures that are currently being taken forward. This mapping aims to identify for which types of loss and damage (economic and non-economic from sudden and slow onset events), there are known measures to address loss and damage, and where there is evidence that such measures can work, and in-so-doing to highlight gaps. We hope that this typology will be developed further and that the mapping presented here will help to encourage investments to significantly scale up measures and to increase recognition and prioritisation of such measures in policy frameworks.

The literature offers a number of ways to classify measures to address loss and damage. Wallimann-Helmer et al¹²¹ classify approaches into the following groups:

- a) comprehensive *risk management* to reduce risks of future losses and damages (in addition to mitigation and adaptation);
- b) risk financing for *risk transfer*, sharing and pooling to support vulnerable people, enterprises and countries to manage escalating financial risks due to increasingly frequent and severe extreme weather events; and,
- c) *curative measures and rehabilitation* from irreversible impacts due to progressive slow onset processes and sudden onset extreme events that cannot or will not be avoided. Steadman et al (2022) discuss the need for these approaches to address particularly climate-induced loss and damage to cultural heritage.

Shawoo et al.¹²² provide a synopsis of measures to address loss and damage which are, as yet, largely unfunded. From this synopsis, measures addressing economic loss and damage related to sudden onset events include: compensation and other social protection measures; short- and long-term recovery and rehabilitation; rebuilding damaged infrastructure; planned relocation and assisted migration; support for rebuilding livelihoods; and, insurance and risk transfer. Approaches to address economic loss and damage due to slow onset events include: planned relocation and assisted migration; reskilling and alternative livelihoods provision; and, compensation and other social protection.

For non-economic loss and damage due to both sudden and slow onset events addressing measures include: recognition of loss and repair of damage (whether or not accompanied by financial payments); enabling access and safe visits to abandoned sites; active remembrance (e.g. through museum exhibitions, school curricula etc.); counselling and official apologies.

Steadman et al¹²³ identify the following ways to address climate-induced loss and damage to cultural heritage:

1. Restitution: restoring those affected to their original situation (or as close as possible) before the loss and damage occurred.
2. Rehabilitation: redressing or repairing the loss and damage through the provision of social services such as healthcare, education or legal support.
3. Satisfaction: symbolic measures to recognise loss and damage, such as truth-seeking, apologies or memorialisation.
4. Material compensation: the provision of money or other benefits in compensation for loss and damage.

121 Wallimann-Helmer et al., 2018

122 Shawoo et al., 2021

123 Steadman et al., 2022

5. Guarantees of non-repetition: commitments and measures to prevent similar loss and damage in the future, such as codes of conduct, training or governance reform.

Drawing on these classifications, the following typology of measures is proposed: *assessing risks and documenting impacts; disaster response; rebuilding infrastructure; planned relocation and assisted migration; transferring, sharing and pooling financial risk; social protection and safety nets; ecosystem conservation, restoration and management; resiliency in livelihoods through rehabilitation, recovery and restitution; curative, truth-seeking, apologies, remembrance, remedial action and counselling.* The reality is that individuals, households and local groups are dealing with the unavoided impacts and residual risks associated with loss and damage by absorbing and trying to recover using their own resources. This is referred to here as *autonomous risk retention*¹²⁴ and denotes the real costs and harm to those people subjected to loss and damage.

The above list of measures offers a typology of loss and damage action and this is used in the mapping that follows (see Figure 4 and 5).

5.2 Mapping the loss and damage landscape

Building on the typology of loss and damage measures discussed above, this subsection considers the availability of evidence under each group of measures in order to identify gaps. The subsection ends by mapping the measures against governance and institutional arrangements, to highlight which mechanisms are successfully being used to address loss and damage and which remain untested.

The pool of available knowledge and evidence on loss and damage extends well beyond what is currently labelled as such. The following discussion summarises some existing work within the groups of loss and damage measures and, where appropriate, connects them with transferable knowledge from other fields:

- Measures for *assessing risks and documenting impacts* have been tried and tested in different places (as set out in case study 9 from UNDP). The CONVERGE Natural Hazards Center at University of Colorado, Boulder, provides access to a very wide range of disaster databases.¹²⁵ The Centre for Research on the Epidemiology of Disasters manages EM-DAT, the emergency events database to serve the purposes of humanitarian action at national and international levels.¹²⁶

124 Risk retention is where an individual or group takes on responsibility for or addressing a particular risk that is faced. In the case of autonomous risk retention, the decision to retain the risk is imposed by exposure, vulnerability and the lack of external support (for example for risk transfer etc.). This situation is analogous to autonomous climate adaptation. Forsyth and Evans (2013) show that autonomous adaptation is driven by how environmental change and scarcity present livelihood risks, rather than physical risks alone. Extrapolating from their conclusions, it can be asserted that planning ways to address loss and damage should acknowledge different experiences of risk, and socio-economic barriers to addressing impacts and risks, thereby reducing the costs and harm of autonomous risk retention.

125 <https://converge.colorado.edu/data/disaster-databases/#:~:text=Databases%20focused%20on%20disaster%20losses%3A%20ANSS%20Comprehensive%20Earthquake,Information%20for%20Member%20Countries%20Asian%20Disaster%20Reduction%20Center>

126 <https://emdat.be/>

- There is a large amount of professional, technical, practical and local knowledge on *disaster response* that is being transferred to addressing loss and damage.¹²⁷ Reliefweb¹²⁸ is a humanitarian information service provided by the United National Office for the Coordination of Humanitarian Affairs that selects, classifies, curates and delivers information relevant to responding to disasters and therefore to addressing loss and damage.
- Disaster recovery in terms of *reconstruction of infrastructure*, including communications, water supply, shelter, etc, are deployed on a regular basis. The Sendai Framework for Disaster Risk Reduction¹²⁹ aims to avoid and reduce risk by “building back better,” through the application of appropriate building codes and standards. Under the Sendai Framework localised approaches that focus on vulnerable settlements are prioritised. There are specialist agencies in different parts of the world with the necessary expertise. Given that this measure centres on economic loss and damage and recovery finance is made available from contingencies, there are strong incentives for private sector involvement to deliver these measures. For example, Mexico has created FONDEN, a natural disasters fund, to rapidly allocate federal funds for the rehabilitation of public infrastructure affected by disasters.¹³⁰
- There is increasing attention being paid to *managed migration and planned relocation* – often in relation to climate impacts. Internal displacement and cross-border migration is being managed in some cases by national authorities, delegated authorities, UN agencies and civil society groups. There are also informal mechanisms whereby people find support to migrate in search of work. Case study 5 in Section 2.2 on the CBF illustrates what can be done to support people who have migrated.
- Measures for *financial risk transfer, sharing and pooling* are being designed, tested and implemented in different places for different types of climate risk and for different types of assets. There are several cases where largely weather-indexed insurance is being offered to people whose assets and livelihoods are exposed to climate risks (e.g. agro-pastoralists). The case studies by WFP in Ethiopia (9, 16) and Practical Action in Nepal (7) illustrate what is being learned and how best to deploy such measures
- *Adaptive social protection*¹³¹ and *safety nets* for people facing climate impacts have been deployed in many parts of the world. This knowledge is being used to develop measures for addressing the impacts of extreme weather events. However, as shown in the case of the Productive Safety Net Programme in Ethiopia (Case study 16), the approach used to develop climate adaptive social protection measures (technocratic and productivist, or rights-based and vulnerability focused) can determine how effective these measures could be in addressing the structural dimensions of vulnerability that contribute to people facing losses and damages.¹³²

127 Oktari et al., 2020

128 <https://reliefweb.int/>

129 <https://www.undr.org/implementing-sendai-framework/what-sendai-framework>

130 <https://openknowledge.worldbank.org/handle/10986/26881>

131 <https://ehs.unu.edu/news/news/five-facts-on-adaptive-social-protection-asp.html#:~:text=Adaptive%20Social%20Protection%20%28ASP%29%20is%20an%20approach%20to,natural%20hazards%2C%20such%20as%20floods%2C%20hurricanes%20or%20earthquakes>

132 Tenzing and Conway, 2022

- *Ecosystem management* measures – now being called ‘nature-based solutions’ (NbS) – are being developed to reduce climate impacts and address loss and damage caused by weather-related disasters.¹³³ While ecosystems can help mitigate climate change (acting as carbon sinks) they can also provide protection from climate impacts e.g. mangroves protecting coastal areas from storm surges. However, losses and damages are also experienced by the ecosystems that are integral to NbS, e.g. sea level rise threatens mangrove ecosystems that are sensitive to inundation rates and salinity. So, while NbS can be part of measures to address loss and damage, strategic ecosystem integrity and conservation will be needed to sustain these ecosystem services.
- There are several examples where in response to climate impacts – causing loss and damage – measures for the *rehabilitation and recovery of livelihoods* have been taken. The World Bank “Unbreakable” report¹³⁴ emphasises the importance of livelihoods rehabilitation as part of recovery from shocks for the poorest as these people, “depend on fewer assets, their consumption is closer to subsistence levels, they cannot rely on savings to smooth the impacts, their health and education are at greater risk, and they may need more time to recover and reconstruct.”
- An example of rehabilitation with a focus on livelihoods following climate impacts is provided by Barau et al.¹³⁵ Coastal and river erosion in Bangladesh – exacerbated by climate change – has caused households to lose farms and other land. Some people resettle on “Khas” land, marginal areas owned by the state. Rehabilitation and resettlement initiatives e.g. the Climate Victims Rehabilitation Programme and the Char Development and Settlement Project, have been established. An upscaling of rehabilitation measures such as these, put in place by the government, could provide new dwellings and land for livelihoods for climate change-induced displaced people.

Figure 4 maps available evidence from sources like those described above against types of measures to assess the knowledge status of these areas. The colour coding illustrates some key issues. Green shading indicates where evidence can be identified, orange where evidence is emerging, beige where little or no evidence has been found, and purple where what is known is based upon experiential knowledge and learning by people at the climate impacts frontline. This important local evidence and knowledge base is largely discussed in anecdotal terms by outsiders.

133 https://wwfint.awsassets.panda.org/downloads/ifrc_wwf_report__working_with_nature_to_protect_people.pdf

134 Hallegatte et al., 2017

135 Barau et al., 2021

Figure 4: Assessment of where evidence and knowledge of different measures to address loss and damage exists

Types of climate impacts	Sudden-onset		Slow-onset		Case study number
	Economic	Non-economic	Economic	Non-economic	
Measures to address loss and damage and risk management approaches	Types of loss and damage				
Assessing risks & documenting impacts	Some national disasters databases. Insurance sector records of pay-out events etc 2	Some national disasters databases. Insurance sector records of pay-out events etc. 3	Some national disasters databases. Insurance sector records of pay-out events etc 2	NELD explored in case studies 3	9 (UNDP), 19 (ICCCAD & IIED), 22 (MRCCJ GCU), 11 (Ruta del Clima), 10 (SCIAF)
Responding to disaster	National disasters agencies supported by multi-lateral agencies. Addressing NELD/ sudden-onset in terms of displacement and trauma evolving. NELD/slow-onset a gap 1	National disasters agencies supported by multi-lateral agencies. Addressing NELD/ sudden-onset in terms of displacement and trauma evolving. NELD/slow-onset a gap 2	National disasters agencies supported by multi-lateral agencies. Addressing NELD/ sudden-onset in terms of displacement and trauma evolving. NELD/slow-onset a gap 1	National disasters agencies supported by multi-lateral agencies. Addressing NELD/ sudden-onset in terms of displacement and trauma evolving. NELD/slow-onset a gap 3	14 (NDMA & IIED), 15 (Conseil départemental de Gossas)
Rebuilding infrastructure	Communications; Water; Shelter 1	Communications; Water; Shelter 3	Less well understood esp. pastoral areas 2	Less well understood esp. pastoral areas 3	2 (Vanuatu NDC)
Planned relocation & assisted migration	Support to re-establish livelihoods and services access 2	Support to re-establish livelihoods and services access 3	Support to re-establish livelihoods and services access 2	Support to re-establish livelihoods and services access 3	5 (BRAC), 17 (Helvetas)
Transferring, sharing, pooling financial risk	Weather indexed crop & livestock insurance 2	Weather indexed crop & livestock insurance 3	Weather indexed crop & livestock insurance 2	Weather indexed crop & livestock insurance 3	6 (WFP), 7 (Practical Action), 8 (Slycan Trust)
Social protection & safety nets	Adaptive social protection 1	Adaptive social protection 3	Adaptive social protection – linked to insurance 2	Adaptive social protection – linked to insurance 3	16 (WFP)
Ecosystem conservation, restoration & management	Coastal zone protection 2	Coastal zone protection 3	Coastal zone, degraded watershed protection 1	Coastal zone, degraded watershed protection 3	20 (ODI)
Resiliency in livelihoods through rehabilitation, recovery & restitution	Post flood re-establishment of farming 2	Post flood re-establishment of farming 3	Rehabilitation after coastal zone damage 2	Rehabilitation after coastal zone damage 3	17 (Helvetas), 23 (WFP)
Curative, truth-seeking, apologies, remembrance, remedial action, & counselling	Learning from public health approaches to trauma also from indigenous groups 3	Learning from public health approaches to trauma also from indigenous groups 3	Learning from public health approaches to trauma also from indigenous groups 3	Learning from public health approaches to trauma also from indigenous groups 3	20 (ODI), 22 (MRCCJ GCU)
Retaining risks by individuals, households and groups	Largely autonomous measures – where costs and harm is dealt with by the people affected 4	Largely autonomous measures – where costs and harm is dealt with by the people affected 4	Largely autonomous measures – where costs and harm is dealt with by the people affected 4	Largely autonomous measures – where costs and harm is dealt with by the people affected 4	19 (ICCCAD & IIED), 22 (MRCCJ GCU)

Key: **1** Evidence that measures can work **2** Emerging evidence **3** Little or no evidence – a gap **4** Experiential learning by affected populations

It is clear from Figure 4 that measures to address *economic* loss and damage have been further investigated. The beige columns under *non-economic* loss and damage – in both *slow* and *sudden* onset forms – denote the limited evidence available on measures to address non-economic losses and damages. As discussed in Section 4, the difficulties in addressing these categories of loss and damage are complicated by gendered and

intersectional aspects and by socio-cultural factors. These beige shaded sub-cells in the mapping represent major gaps in theory, knowledge and action.

The beige row on addressing measures including *curative, remembrance, remedial action, and counselling* indicates that these ways of addressing loss and damage have not been developed other than in very specific places and circumstances.

The purple shading of row *retaining risks* (i.e. absorbing the total costs and harm) *by individuals, households and groups* is significant. It denotes that costs and harm are dealt with by the people affected with little or no external support.

A case study authored by Rachel Clissold¹³⁶ and colleagues on loss and adjustment in in the Cook Islands shows how people are experiencing, preparing for, responding to

and recovering from droughts and cyclones. Disaster experience over centuries has resulted in important local knowledge and traditional coping strategies to anticipate, prepare for and adapt to extreme weather. Clissold and colleagues conclude that the Cook Islanders' tacit knowledge and endogenous spiritual and community resources offer agency, hope and resilience in the face of climate change into the future.

Figure 5: Mapping measures against governance and institutional arrangements

Governance and institutional arrangements									
Measures to address loss and damage and risk management approaches	Global facilitation	Multilateral agencies & programmes	Regional facilities	National mechanisms	Market driven, private sector	Sub-national authorities	NGO projects	Local collective action	Case study number
Assessing risks & documenting impacts	IPCC, UNDP, UNDRR 1	1	2	National disaster databases 1	3	3	2	2	9 (UNDP), 19 (IACCAD & IIED), 22 (MRCCJ GCU), 11 (Ruta del Clima), 10 (SCIAF)
Managing, reducing & Responding to disasters and risks	UNOCHA 1	2	3	2	3	2	Humanitarian agencies & NGOs 1	1	14 (NDMA & IIED), 15 (Conseil départemental de Gossas)
Rebuilding infra-structure	3	3	3	National Disaster Management Agencies 2	2	2	3	2	2 (Vanuatu NDC)
Planned relocation & assisted migration	IMO, UNHCR 1	2	3	2	3	3	1	2	5 (BRAC), 17 (Helvetas)
Transferring, sharing, pooling financial risk	3	3	Risk sharing among countries 2	2	Insurance 2	3	2	Micro-finance 2	6 (WFP), 7 (Practical Action), 8 (Slycan Trust)
Social protection & safety nets	3	2	3	HSNP, Kenya; PSNP Ethiopia; etc. 1	3	3	2	3	16 (WFP)
Ecosystem conservation, restoration & management	CBD; IPBES 2	2	3	2	3	3	Conservation NGOs 1	2	20 (ODI)
Resiliency in livelihoods through rehabilitation & recovery	3	UNDP; UNEP 2	3	2	3	2	Livelihoods NGOs 1	2	17 (Helvetas), 23 (WFP)
Curative, remembrance, remedial action & counselling	3	3	3	3	3	3	2	2	20 (ODI), 22 (MRCCJ GCU)
Retaining risks by individuals, households and groups	3	3	3	3	3	3	3	4	19 (IACCAD & IIED), 22 (MRCCJ GCU)

Key: 1 Evidence that measures can work 2 Emerging evidence 3 Little or no evidence – a gap 4 Experiential learning by affected populations

136 from Bharadwaj and Shakya (eds), 2021


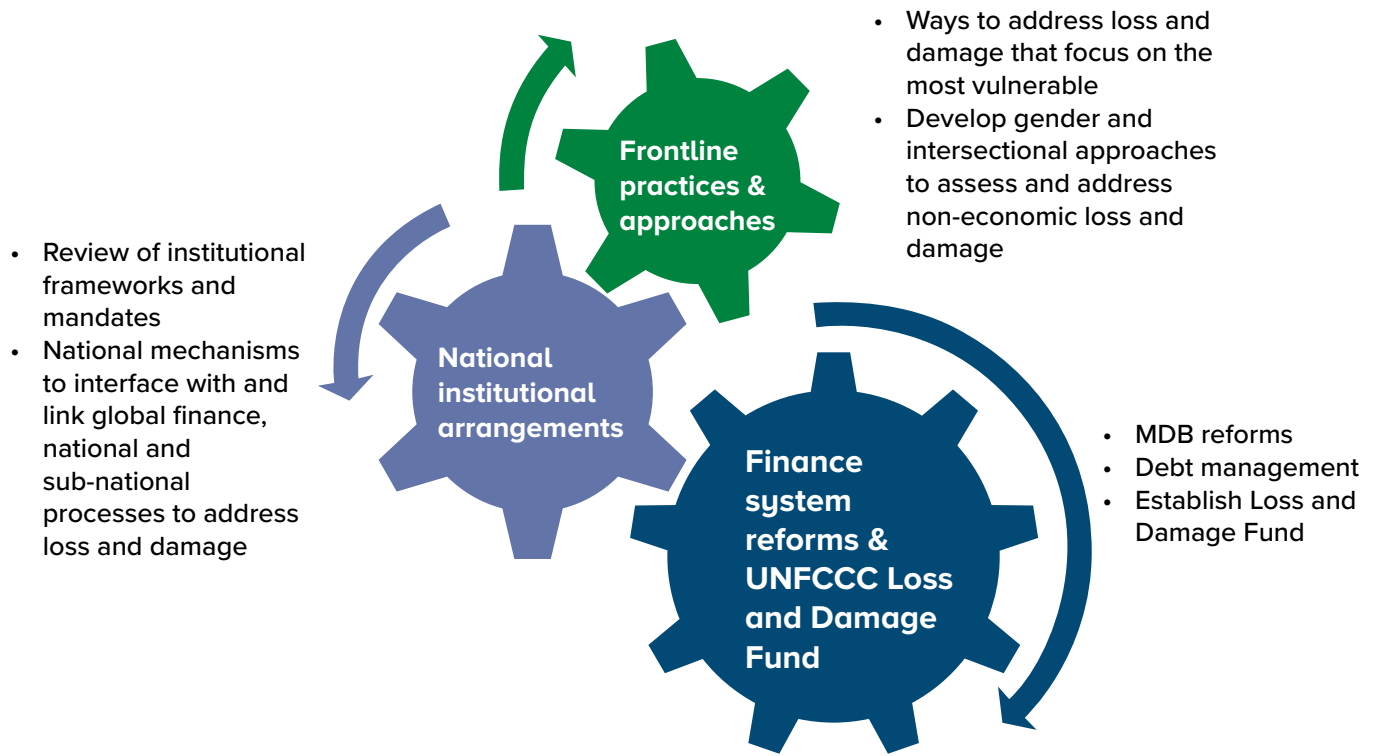


Figure 5 provides an initial mapping of measures in relation to the governance and institutional arrangements used to coordinate them. The evidence reviewed here from case studies and secondary information has been used to identify which governance systems, at which levels and with which institutional arrangements are currently important in delivering interventions to address loss and damage.

The mapping shows how important national mechanisms through public sector agencies will be in order to draw down finance from the UNFCCC Loss and Damage Fund once established. These agencies should be able to assess needs, design measures to address, coordinate implementation, and manage the monitoring, evaluation, reporting and learning processes. It also shows how the role of sub-national authorities needs to be enhanced to take on delegated mandates from national government and to be able to facilitate bottom-up local to national approaches to address loss and damage. Both the national and sub-national components rely on the capacity that exists to govern well a complex, vulnerability-focused and largely social process. Civil society organisations, community-based groups, and NGOs are and will be involved in fostering local collective action will be for ecosystem-based measures, achieving resiliency through livelihoods rehabilitation and curative measures. They may also act as a more direct recipient of some forms of finance mobilised outside the UNFCCC.

Figure 6 shows what work at global, national and local levels needs to be carried out in synchrony to deliver a system capable of delivering the means to address loss and damage for the most vulnerable. The global financial system needs to be reformed and the UNFCCC Loss and Damage Fund established to mobilise the scale of funding that is required to address current and future losses and damages. At the national level, reviews of the institutional frameworks and mandates for addressing loss and damage are needed. These reviews can act as precursors for the establishment of national mechanisms to interface with and link global finance, national and sub-national processes to address loss and damage. At the local climate frontline ways to address loss and damage that focus on the most vulnerable are needed. It is especially necessary to develop gender and intersectional approaches to assess and address non-economic loss and damage.

Figure 6: Global, national and local priorities for addressing loss and damage



6 Conclusions

Climate vulnerable countries, people and communities affected by loss and damage are finding it difficult to absorb the effects of escalating and now unavoidable climate risks and impacts. Intersectional factors, including gender, undermine many peoples' capacity to absorb and recover from climate induced loss and damage. Recurrent and increasingly severe climate extreme events compound socioeconomic factors like population density, income inequality and the degrading environment.

Climate risks to survival, food security and livelihoods compel vulnerable communities to migrate.¹³⁷ A World Bank study projects that climate change will result in 216 million

internally displaced people by 2050.¹³⁸ Determining loss and damage needs and addressing them in such contexts is a high stakes endeavour.

It is important to recognise that the bulk of loss and damage impacts and risks are most often borne by the affected people, households and communities who have contributed so little to the climate crisis. They bear the majority of the costs of preparedness, absorbing the impacts and recovering often by investing household revenues gained through remittances and, where available, through selling assets, selling labour (often of young household members), and foregoing other expenditures.



WFP – A member of the Uru Murato community stands on the lakebed of Lake Poopó - WFP/Elio Rujano

137 Bharadwaj and Huq, 2022

138 Clement et al., 2021

6.1 Solutions identified

From an analysis of the case studies discussed in Sections 2, 3 and 4, a number of practical solutions for addressing loss and damage have been identified. These are summarised here as related to mobilising public finance and innovative finance models, assessing needs and delivering actions. They will not be universally applicable; however, they serve to re-emphasise the importance of a comprehensive mosaic of solutions to scale finance for loss and damage, and to tailor interventions to the specific needs of affected communities in different contexts.

Mobilising public sector finance to address loss and damage

- i. The MDBs could expand the eligibility criteria for concessional finance to include vulnerability to climate impacts. This would address the perceived inequity felt by countries that have moved from “least developed” to “middle income” status yet still have large proportions of climate vulnerable people in their populations.
- ii. The Resilience and Sustainability Trust of the IMF could support losses and damages through, for example, shock-responsive social protection systems, establishing contingency funds, or underwriting affordable insurance products.
- iii. Sovereign debt management through cancellation, restructuring and debt-for-climate swaps¹³⁹ would support climate vulnerable countries to achieve the fiscal flexibility to allocate resources to addressing loss and damage.
- iv. MDBs could provide grants for loss and damage to cover insurance risks in the most vulnerable cases. This would recognise the limits of insurance and the unaffordability of premiums for many countries.
- v. The Bridgetown Initiative launched by the Government of Barbados calls for “a global mechanism for raising reconstruction grants for any country just imperilled by a climate disaster”.¹⁴⁰
- vi. Future allocations of Special Drawing Rights from the IMF could be re-directed from rich, high-polluting nations to climate impacted countries.¹⁴¹
- vii. Greater application of debt relief and debt suspension services, such as the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatments used during the COVID-19 pandemic, could mitigate the risk of spiralling debt caused by cumulative losses and damage.
- viii. Loss and damage can be incorporated into National Adaptation Plans and Nationally Determined Contributions so as to inform the mobilisation and allocation of funding through the UNFCCC. The inclusion of loss and damage in the Vanuatu Revised and Enhanced 1st Nationally Determined Contribution (2021-2030)¹⁴² sets a good precedent. Twelve commitments are included on addressing loss and damage in the national climate change and disaster risk reduction policy, disaster induced displacement policy and the climate diplomacy strategy.
- ix. In the immediate term, governments at national and subnational levels can act now to address loss and damage by providing funds through bilateral channels, civil society organisations for small grants programmes, or through multilateral initiatives that demonstrate value.

139 <https://www.imf.org/en/Publications/WP/Issues/2022/08/11/Debt-for-Climate-Swaps-Analysis-Design-and-Implementation-522184>

140 <https://www.foreign.gov.bb/the-2022-barbados-agenda/>

141 [Using the UK's SDRs to tackle Covid-19 and climate change \(cafof.org.uk\)](https://cafof.org.uk/Using-the-UKs-SDRs-to-tackle-Covid-19-and-climate-change)

142 <https://unfccc.int/documents/578782>

Innovative finance for addressing loss and damage

- x. The interest-bearing endowment that KfW (the German Investment Bank) has provided for BRAC can set an innovative precedent for generating finance flows from the private sector, via financially competent NGOs, to local groups needing to address loss and damage.
- xi. Contributions to public works construction and rehabilitation of community assets can be exchanged for access to insurance for those households unable to pay premiums. However, households that cannot provide labour also need access to subsidised insurance.¹⁴³
- xii. Coherent national policy frameworks are needed to foster innovations in addressing loss and damage that include private sector and marginalised communities. The Nepal National Framework on Climate Change Induced Loss and Damage¹⁴⁴ is a standout example of emerging national policy frameworks. With COP27 decisions on loss and damage it is anticipated that other countries and jurisdictions will develop their own policy frameworks that can shape and foster innovative ways of addressing loss and damage.

Determining needs

- xiii. Support is needed to build capacity for climate risk analysis and loss and damage needs assessments. The SNLD is mandated to coordinate building such technical capacity in countries for addressing loss and damage. A UNDP Milliman collaboration is providing USD 2m per year to 2025 of pro bono services to build developing country governments' capacity in analytical techniques of risk management.¹⁴⁵

- xiv. There are various tried and tested assessment tools that – with some adaptation – can be used to assess loss and damage needs, both economic and non-economic.
- xv. Assessing loss and damage needs in different ways can make the case for integrated ways to address them. For example, social and economic assessment will be required to leverage combined investments in social protection, psychological support, and health care.
- xvi. As more cross-border migration is expected, there is a need to undertake further research on the routes that migrants are likely to take from climate hot spots, the burden of disease mortality and disease transmission to which they could become vulnerable, based on their vaccination status and vaccine availability, and how that could be prevented. Assessments of possible well-being and health issues for migrants that move across borders and stay in relief camps should be included.

Delivering actions

- xvii. Decentralised finance can help local groups and communities draw down resources easily and flexibly. Quotas per group, community or administrative unit work well rather than competition for resources between them.
- xviii. Early experiences in Malawi (SCIAF case study 10) and Bangladesh (ICCCAD, IIED case study 19) indicate that participatory and genuinely representative loss and damage planning at the grassroots level work both to assess needs and to deliver on priority actions. This is corroborated

143 <https://unu.edu/publications/books/public-works-and-social-protection-in-southern-africado-public-works-work-for-the-poor.html#overview>

144 <https://www.mofe.gov.np/uploads/documents/national-framework-on-loss-and-damage-approved-document-20211653988842pdf-0805-652-1658826902.pdf>

145 <https://www.undp.org/geneva/press-releases/undp-milliman-join-forces-build-actuarial-capacity-developing-countries-and-boost-inclusive-development>

by the work on locally-led adaptation and the principles developed for that type of climate action.¹⁴⁶

- xix. It will be important to integrate loss and damage preparedness actions into local development processes and protocols, and into territorial planning. Loss and damage integration should be complementary to adaptation planning and disaster risk preparedness.
- xx. Awareness raising and technical capacity development for forecasting climate impacts on key infrastructure can help to prepare for current and future loss and damage and to develop response capacity (e.g. early warning systems) – particularly for now-unavoidable impacts and risks.
- xxi. National-level policy recognition and direction is required to establish a sustainable institutional incentive structure that brings together agencies responsible for the different elements required in integrated interventions, e.g. insurance, humanitarian response, recovery and rehabilitation agencies, planned migration, livelihoods development and adaptive social protection.
- xxii. Adaptive social protection approaches have been deployed in various locations and their role in providing safety nets for people affected by both sudden and slow onset climate impacts is recognised. More recent programmes have combined social protection with provision of weather indexed insurance. However, it is important to note that the primary objective of national social protection schemes is to protect from poverty, and adding climate-adaptive functions can overburden these schemes.
- xxiii. A number of legal initiatives have been launched through international courts to clarify the responsibilities of states for

climate change. These initiatives could facilitate future climate litigation efforts that seek to hold major emitters responsible for climate-related loss and damage.

- xxiv. Innovation in ways to address loss and damage is needed. Willing investors in experiments and learning on loss and damage intervention design and implementation need to be identified and recruited.

6.2 Insights for Practical Action on Loss and Damage

The insights generated at the Conference and published in the summary report are reflected upon here in light of the progress achieved at COP27 on addressing loss and damage. These are proposed to inform how finance and action to address loss and damage can be accelerated, scaled and implemented in a way that is fair and equitable. These have been widely consulted upon and are applicable to funding from and action by all actors working on loss and damage.

The work of Stockholm Environment Institute (SEI), with funding from the Scottish Government, on principles and modalities for operationalising loss and damage finance and previous work on fairness and feasibility,¹⁴⁷ provide very helpful points of reflection. The SEI work highlights the following principles that can underpin how loss and damage finance can be operationalised: historical responsibility for GHG emissions and the polluter pays principle; equitable and targeted support; grant-based and programmatic finance; ease of finance access; recipient ownership; and transparency and accountability in access and implementation. These principles operate across the following implementation phases: mobilising finance; assessing needs; designing and implementing interventions (incl. resourcing); monitoring, evaluation and learning (MEL); and measures for long term resilience.

146 <https://www.iied.org/principles-for-locally-led-adaptation>

147 Shawoo, et al., 2021; Shawoo and Bakhtaoui, 2022



C40 Cities: Dhaka South, Jeremy Woodhouse, Gettyimages

6.2.1 Urgency of action

At COP27, Parties agreed that a global Loss and Damage fund is needed, but while it becomes operational a variety of existing financial instruments from public and private sources (see the case studies in Section 2) can be scaled up and expanded upon, and innovative sources of funding are required to better meet the rising needs. This is the mosaic of solutions referred to above.

At the same time, urgency, particularly when assessing needs and disbursing funds, must be tempered by the need to facilitate participation and local ownership, ensuring that no harm is done to affected populations. To this end, a body of evidence is available which draws upon the experience of the humanitarian community in conducting rapid participatory needs assessment and co-designing programmes within complex emergency settings.¹⁴⁸ Funding agencies can work with implementation partners and affected communities to apply these approaches

to addressing the economic, and adapt approaches to better address non-economic, losses and damages that accrue over the longer term beyond the initial humanitarian response.¹⁴⁹ Deploying adaptive management processes and forming communities of practice can support lesson-sharing and accelerate the pace of effective action.

Building on existing distribution mechanisms and programmes already in operation within affected communities prior to the disaster can provide an avenue to accelerate the distribution of funds. In 2022 the Scottish Government rapidly mobilised and disbursed funds to communities in Malawi affected by Storm Ana through a trusted partner, SCIAF, who had previously established close working relationships with the affected local communities (see SCIAF case study 10). “Ramping-up” examples such as this can help build momentum toward the huge scale of global finance needed for loss and damage, and act as a precursor and test-bed for the UNFCCC Loss and Damage Fund.

148 UNHCR 2017; UNHCR Needs Assessment Handbook; <https://cms.emergency.unhcr.org/documents/11982/50204/UNHCR+Needs+Assessment+Handbook/>

149 <https://www.lossanddamagecollaboration.org/pages/to-address-loss-and-damage-at-the-scale-of-the-needs-we-need-to-curate-more-rebel-ideas>

6.2.2 Equitable and targeted

Climate change disproportionately affects marginalised people – including women, children, LGBTQI+, the elderly, people with disabilities and indigenous groups. The assessment of needs and the design and delivery of interventions must consider the ways that climate impacts affect different people differently. It is critical that the knowledge, needs and capacity of those affected by loss and damage are recognised and that their agency in decision-making is facilitated. Locally-led approaches can enable affected people to act as the primary agents of change.

Those mobilising finance, those implementing programmes and those experiencing losses and damages can work together across the different stages of addressing losses and damages. Delivery mechanisms must not exacerbate inequalities and patterns of disadvantage, and the use of gendered and intersectionality-informed needs assessment can be used to minimise elite capture. The Climate Justice Resilience Fund works with partner organisations to deliver loss and damage initiatives that acknowledge and address intersectionality.¹⁵⁰ One such project by Helvetas (case study 17) has begun developing a gender-disaggregated database of seasonal and temporary migrant workers, to provide an evidence base for further support for climate-forced displacement, including rebuilding livelihoods.

6.2.3 Responsive to Context

The broader socio-economic and political context needs to be considered in the mobilisation of funds, assessment of needs and design and delivery of interventions. This is particularly important where people face intersecting risks and accumulated losses and damages related to conflict, economic instability, climate change and geophysical

hazards. When informed by a comprehensive risk assessment that takes account of intersectional drivers of vulnerability such as poverty, food insecurity and poor infrastructure, loss and damage interventions can help to build longer term resilience.

People and communities affected by climate loss and damage in conflict zones are often harder to reach due to the challenges of operating in unstable and dangerous locations. Ensuring the safety of affected people is particularly crucial when supporting relocation and displacement, and climate-induced disasters exacerbate the risk of gender-based violence for women and girls who are more likely to be displaced than men. The Climate and Environment Charter for Humanitarian Organizations¹⁵¹ has been developed by agencies specialised in humanitarian work in conflict affected locations.

6.2.4 Adequate to Meet Real Needs

The scale and types of both finance and action must be adequate to the task of addressing particular losses and damages in specific contexts now and into the future. The sums of finance provided need to adequately meet the immediate needs of people and communities negatively impacted by climate shocks, their recovery and rehabilitation needs and their long-term resilience-building requirements.

Adequacy of intervention must cover the full range of needs of those impacted, from infrastructure rehabilitation, provision of food relief, public health support, emergency shelter and livelihoods recovery, to mental health support and grief counselling, and actions to address other forms of non-economic losses and damages. Affected people, households and communities can engage with and lead in defining what “adequate” means. Participatory MEL methodologies can be utilised to assess and ensure the adequacy of processes to address loss and damage. For example,

¹⁵⁰ <https://www.cjrfund.org/loss-and-damage>

¹⁵¹ ICRC/IFRC 2022 The Climate and Environment Charter for Humanitarian Organisations <https://www.climate-charter.org/>

YPSA in Bangladesh (funded with Scottish Government funds allocated at COP26 to CJRF) established community groups that include previously displaced community members to help identify the most vulnerable that should receive assistance first.

The Glasgow Pact included a call for Parties to revise their Nationally Determined Contributions (NDCs). While not obligatory, an increasing number of countries are including loss and damage considerations and responses in their latest NDCs. By costing the interventions needed to address loss and damage in their NDCs, vulnerable developing countries signal the need for new and additional funding and outline how they intend to use it. Vanuatu has made a huge step in this direction with the Revised and Enhanced Nationally Determined Contribution¹⁵² where addressing loss and damage is centre stage. Practical Action and WWF have considered the value and the resource implications of anchoring loss and damage in NDCs.¹⁵³

Technical support – for instance through the Santiago Network on Loss and Damage once operational – will be necessary for countries to conduct analyses of the potential scale of losses and damages (both economic and non-economic). These assessments need to consider different climate scenarios, to quantify financial needs in the event of specific shocks, and to put in place financial mechanisms that deliver adequate sums for effective action. Based on these risk analyses, governments could then develop comprehensive loss and damage action plans.

6.2.5 Accessible to All

Finance and interventions must be designed and delivered in ways that actively empower those affected by loss and damage to be able to access funds easily and quickly. The DCF model described in the IIED/NDMA case study

shows how local communities can access annually allocated funding for climate action including addressing loss and damage.

Accessibility requires that finance providers themselves identify and remove obstacles. This may entail reviewing and revisiting their risk analysis and disbursement processes, building the capacity of recipients and putting in place additional safeguards as required.

Being accessible in two directions is important. From the bottom up, in terms of ensuring funds are accessible to the people that need them, and from the top down, so those organisations and people able to contribute to finance have the opportunity to do so.

Direct access to funds, support through untied grants, allocations not based upon competitive processes for distribution, and using participatory methods at the insider/outsider interface are all critical for accessibility. Finance providers can also develop technologies and mechanisms to transfer funds more quickly and in a more targeted manner to respond to the needs of recipients.

Finally, accessibility is informed by the “non-burdensome” principle that avoids creation or compounding of indebtedness. At the national level, countries need non debt-generating finance primarily delivered in the form of grants. At smaller scales, eligibility criteria that are inclusive and that account for the capacity of their target recipients should minimise financial and administrative burdens.

6.2.6 Historical Responsibility and Polluter Pays

The UNFCCC sets out the importance of historical responsibility and the principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances. This is reaffirmed in Article 2 of the Paris Agreement. As Shawoo

152 Vanuatu NDC Revised and Enhanced, August 2022 <https://unfccc.int/documents/578782>

153 https://wwfint.awsassets.panda.org/downloads/wwf_pa_anchoring_loss_and_damage_in_ndcs_report.pdf

et al.¹⁵⁴ set out, the principles of historical responsibility and polluter pays should guide contributions and could be a vehicle for restorative justice. In line with these principles, the authors identify the following as potential examples of finance flows: climate damages tax on the extraction of coal, oil and gas; international airline passenger levy; reallocation of Special Drawing Rights from developed to developing countries; and annual reduction in fossil fuel subsidies by G20 countries, with the funds being used to support efforts to address loss and damage. The call for an Advisory Opinion on climate change from the International Court of Justice by Vanuatu could set the stage for action to hold major polluters accountable for anthropogenic climate change. The Alliance of Small Island States (AOSIS) are also calling for polluting companies like fossil fuel producers to pay for the loss and damage caused by climate change via taxes or voluntary contributions.

6.2.7 Creative Communication and Shared Learning

The issue of whose voices and experiences are listened to is important. The people and communities at the frontline of losses and damages need to be heard and learned from. By listening to others with experiences of loss and damage we can learn about impacts and risks, as well as build a better picture of solutions that can draw down funding support. Frontline communities are keen to shift the narrative to solutions that address their loss and damage.

People in Dhaka, Bangladesh are using theatre to make and tell stories of their lived experience of climate change.¹⁵⁵ The La Ruta Del Clima case study 11 shows how stories from a diversity of groups who are experiencing economic and non-economic loss and damage due to climatic impacts are shared. Using stories helped to contextualise climate change;

it showed how climate impacts perpetuate inequality and vulnerability and interact with extractive dynamics, and allowed further exploration of the experiences and perception of those most affected.

6.2.8 Transparency and Accountability

Providers and recipients of finance for addressing loss and damage should be forthright about the flows and use of funds. Taking advantage of existing national systems of tracking finance is important. Use can be made of self-reporting based upon participatory monitoring, evaluation and learning.

Once finance is accessed by countries, using established national financing channels that are known to work to get the money to where it is needed is sensible. People who need support in addressing losses and damages need direct access to resources so they can make their own allocation decisions. Local ownership can also be used to confront existing power structures that may exist between governments, private sector, civil society and local communities in a way that ensures that all stakeholders are equitably represented. In this way, local ownership supports the distributional, procedural and transformative aspects of climate justice.

Monitoring, evaluation and learning are critical both for bottom-up accountability, i.e. how measures are reported to funding bodies, and for downward accountability, i.e. how those responsible for financially supporting and implementing measures to address losses and damages are held to account by those facing the impacts and risks of losses and damages.

The UNFCCC can and should embody and deliver global transparency and accountability for all climate action under its remit, including action to address loss and damage. For instance, enhanced NDCs can be used to

154 Shawoo et al., 2021

155 Jordan, 2020

demonstrate need and inform the allocation of loss and damage finance. The Global Stocktake is to be used to collate evidence both of the incidence and severity of losses and damages, but also of the measures being taken to address them. This will require inputs from climate vulnerable countries and support for the articulation of their loss and damage needs (coordinated under the Santiago Network for Loss and Damage). A Loss and Damage Gap Report is proposed as a critical input to this process.

6.2.9 Far-sighted and ‘Do No Harm’

The ‘Do No Harm’ approach applies to the UNFCCC Loss and Damage negotiation process. The G77 and China group of Parties have pledged to do no harm to the proposals of sub-groups, even where these are not unanimously supported.

Being cognisant of and acting to address the projected escalation in future risks of loss and damage, particularly the unavoidable increases in hazards, is important. The impacts of disasters will compound over time and eventually become insurmountable: longer-term projects that build resilience can break this cycle.

Acting on loss and damage in ways that are not deleterious to future generations is crucial. In the urgency to address loss and damage the danger of longer-term harm may be overlooked. Far-sighted approaches also offer narrative shifts from relief and response towards a more sustainable approach that incorporates slow onset events. Indonesia, for example, has published a Long-Term Strategy for Low Carbon and Climate Resilience 2050.¹⁵⁶ Case study 12 outlines a project committed to creating a water-safe future for the world’s

cities. Research in 97 C40 cities facilitated calculation of flood and drought risk by 2050, and the risk of population exposure and accompanying costs. The project gives technical assistance to develop, organise, and coordinate water management strategies.

6.2.10 No Additional Indebtedness

The costs of responding to loss and damage should not become a burden for affected groups who are often the least responsible for climate change. Finance needs to be available at appropriate timescales and quantities. Two primary levers can be used to ensure that action to address loss and damage does not increase the debt burden already faced by affected countries, communities and individuals: debt cancellation/relief, and grant-based (rather than loan-based) programme funding.

The UNFCCC Loss and Damage Fund agreed at COP27¹⁵⁷ to assist countries “particularly vulnerable to the adverse effects of climate change” will need to consider how to avoid increasing indebtedness. The Transitional Committee will be able to recommend ways to do this including the large-scale provision of grant finance. For other sources of finance where conditionalities preclude grant-based finance, vulnerable countries will need access to concessional finance on favourable terms.

There is growing recognition of the role of debt cancellation/relief in achieving climate justice goals, underlining the structural inequity in the availability of existing finance. Examples provided by Jubilee Scotland in their case study include the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatments.

156 <https://unfccc.int/documents/299279>

157 Decision -/CP.27 -/CMA.4 Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage. Clause 2. Decide to establish new funding arrangements for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, in responding to loss and damage, including with a focus on addressing loss and damage by providing and assisting in mobilizing new and additional resources, and that these new arrangements complement and include sources, funds, processes and initiatives under and outside the Convention and the Paris Agreement; Clause 3. Also decide, in the context of establishing the new funding arrangements referred to in paragraph 2 above, to establish a fund for responding to loss and damage whose mandate includes a focus on addressing loss and damage.

As a direct result of addressing the impacts of the 2022 floods Pakistan has signed a \$475 million loan agreement for flood relief with the Asian Development Bank. This increases the 2022 loan total to USD 2.7 billion with the agency. It is reported that Pakistan has been trying to approach allies to seek financial support, and a ninth review of the International Monetary Fund for a 2019 bailout programme has been pending since September 2022.

Grant-based rather than loan-based programme funding means that affected countries, communities and individuals are not driven further into debt by having to repay more than the value of the finance that is provided. Where this is provided as longer term programmatic finance, action and interventions to address loss and damage can be delivered more strategically over the medium to long term. An example of this is shown through the actions of philanthropies such as CIFF who have experience of grant-based action through their delivery of the Global Methane Hub and who also backed the V20 fund, which builds on the GEF's Small Grants Programme and is aligned with climate justice principles.

6.3 Concluding remarks

The political economy of addressing loss and damage is tilted against the most vulnerable. Climate vulnerable people have little economic or political power to demand that a protection floor is put in place. Climate vulnerable countries have found it difficult to push through loss and damage decisions at the UNFCCC. However, COP27 represents a transformative change and there is growing acceptance of the need to address loss and damage faced by the most vulnerable.

The scale and pace at which loss and damage is occurring clearly demonstrates the limits to

climate adaptation at the current level of climate risks and impacts. However, recent assessments of the effectiveness of internationally funded adaptation interventions¹⁵⁸ and an analytical review of maladaptation¹⁵⁹ show that investments in climate adaptation are inadequate to effectively manage or even reduce climate impacts. If successful, the proposal by AOSIS to include loss and damage in the Global Stocktake¹⁶⁰ will help to calibrate how well current adaptation measures are minimising loss and damage.

The Transitional Committee requires evidence on how the current landscape of funding can be mobilised to inform its recommendations for the operationalisation of the UNFCCC Loss and Damage Fund.¹⁶¹ Similarly bilateral and other funders seeking to fund measures to address loss and damage need to be aware of where the priorities and gaps are. The mapping of the loss and damage landscape discussed in Section 5 of this report outlines some of these gaps and priorities. Non-economic loss and damage is a particularly neglected category. In part this is due to the highly context specific and less tangible nature of such loss and damage – particularly to people from outside the immediately affected communities.

At the global level the MDB reforms, discussed at COP27 and set out by Prime Minister Mottley of Barbados in her address to the general debate of the General Assembly's seventy-seventh session,¹⁶² would enable the release of trillions of dollars needed to comprehensively address loss and damage. Maintaining the momentum on reforms to the Multilateral Development Banks and International Financial Institutions, alongside establishing the Loss and Damage Fund, should not deter other public and private funders from taking action as losses and damages continue to accrue for communities at the frontline of the climate crisis.

158 Eriksen et al., 2021

159 Schipper, 2020

160 <https://unfccc.int/topics/global-stocktake/information-portal>

161 <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/transitional-committee>

162 <https://news.un.org/en/story/2022/09/1127611>

7 References

- Achampong, L; (2023) Reforming climate finance, Development Co-operation Report 2023: Debating the Aid System, European Network on Debt and Development. [Development Co-operation Report 2023 : Debating the Aid System | OECD iLibrary \(oecd-ilibrary.org\)](https://www.oecd-ilibrary.org/development/co-operation-report-2023-debating-the-aid-system)
- European Network on Debt and Development Andrei, S, Rabbani, G and Khan, H (2014) Noneconomic loss and damage caused by climatic stressors in selected coastal districts of Bangladesh. Bangladesh Centre for Advanced Studies. http://www.icccad.net/wp-content/uploads/2016/02/ADB-Studyon-Non-Economic-Losses-and-Damages-Report_Final-Version-Reduced-File-Size_compressed1.pdf
- Ayeb-Karlsson, S; Chandra, A; McNamara, KE; (2021) Stories of Loss and Healing: Connecting Non-Economic Losses and Damages with Gendered Wellbeing Erosion in the Asia-Pacific Region. Research Square: Durham, NC, USA
- Bahinipati, C. S. (2020). Assessing the Costs of Droughts in Rural India: A Comparison of Economic and Non-Economic Loss and Damage. *Current Science*, 118(11), 1832. <https://doi.org/10.1002/tqem.21747>
- Bahinipati, C. S. (2021). Do risk management strategies prevent economic and non-economic loss and damages? Empirical evidence from drought affected households in western India. *Environmental Quality Management*, 31(3), 59–66. <https://doi.org/10.1002/tqem.21747>
- Barua, P., Eslamian, S., Rahman, S.H. (2021). Rehabilitation and Relocation Program for Climate Displaced People of Bangladesh. In: Leal Filho, W., Luetz, J., Ayal, D. (eds) *Handbook of Climate Change Management*. Springer, Cham. https://doi.org/10.1007/978-3-030-22759-3_298-1
- Bharadwaj, R and Shakya, C (eds) (2021) *Loss and damage case studies from the frontline: a resource to support practice and policy*. IIED, London. ISBN: 978-1 78431 928-1 <http://pubs.iied.org/20551iied>
- Bharadwaj, R and Huq, S (2022) *Climate-induced migration and health issues: a toolkit for policymakers*. IIED, London. <http://pubs.iied.org/21256IIED>
- Bharadwaj, R., Mitchell, T., Huq, S. (2023). *Non-economic loss and damage: closing the knowledge gap*. IIED, London. <https://www.iied.org/21311iied>
- Boyd, E., Chaffin, B. C., Dorkenoo, K., Jackson, G., Harrington, L., N'Guetta, A., Stuart-Smith, R. (2021). Loss and damage from climate change: A new climate justice agenda. *One Earth*, 4(10), 1365–1370. <https://doi.org/10.1016/j.oneear.2021.09.015>
- CAFOD (2021) Using the United Kingdom's SDRs to tackle Covid-19 and climate change: <https://cafod.org.uk/about-us/policy-and-research/debt-and-economic-justice/using-the-uk-s-sdrs>
- Chiba, Y. and Prabhakar, S. (2017). Priority Practices for Addressing Non-economic Loss and Damage caused by Typhoons in Japan: Case Study of Nachikatsuura Town. IGES Research Report. Kanagawa, Japan: Institute for Global Environmental Strategies (IGES). Retrieved from <https://www.iges.or.jp/en/pub/priority-practices-addressing-non-economic/en>
- Chiba, Y., Prabhakar, S., & Islam, M. (2019). Addressing non-economic loss and damage associated with climatic events: Cases of Japan and Bangladesh. *APN Science Bulletin*, 9(1). <https://doi.org/10.30852/sb.2019.740>
- Cianconi, P., Betrò, S., & Janiri, L. (2020). The Impact of Climate Change on Mental Health: A Systematic Descriptive Review. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.00074>
- Clement, V, Rigaud, KK, de Sherbinin, A, Jones, B, Adamo, S, Schewe, J, Sadiq, N and Shabahat, E (2021) *Groundswell Part 2: Acting on Internal Climate Migration*. World Bank, Washington, DC.
- Eriksen, S. E., Schipper, L. F., Scoville-Simonds, M., Vincent, K., Adam, H. N., Brooks, N., Harding, B., Khatri, D., Lenaerts, L., Liverman, D., Mills-Novoa, M., Mosberg, M., Movik, S., Muok, B., Nightingale, A., Ojha, H., Sygna, L., Taylor, M., Vogel, C., and West, J. J. (2021) Adaptation interventions and their effect on vulnerability in developing countries: Help, hindrance or irrelevance?, *World Development*, Volume 141, 2021, 105383, ISSN 0305-750X, <https://doi.org/10.1016/j.worlddev.2020.105383>.
- Forsyth, T. and Evans, N. (2013) What is Autonomous Adaption? Resource Scarcity and Smallholder Agency in Thailand, *World Development*, Volume 43, 2013, Pages 56-66, ISSN 0305-750X, <https://doi.org/10.1016/j.worlddev.2012.11.010>. (<https://www.sciencedirect.com/science/article/pii/S0305750X12002896>)
- Gomes, M. (2021) *Poverty-centred local adaptation in Mozambique*. IIED, London. <https://www.iied.org/17771iied>
- Hallegette, S., Vogt-Schilb, A., Bangalore, M. and Rozenberg, J. (2017) *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters*. Climate Change and Development Series. Washington, DC: World Bank. Doi:10.1596/978-1-4648-1003-9 <https://openknowledge.worldbank.org/handle/10986/25335>

- Heldrich, A. (1970). Compensating Non-Economic Losses in the Affluent Society. *The American Journal of Comparative Law*, 18(1), 22. <https://doi.org/10.2307/839460>
- Islam, M.R., Hasan, M. Climate-induced human displacement: a case study of Cyclone Aila in the south-west coastal region of Bangladesh. *Nat Hazards* 81, 1051–1071 (2016). <https://doi.org/10.1007/s11069-015-2119-6>
- Islam, M. M., Nipa, T. A., Islam, M. S., Hasan, M., & Khan, M. I. (2022). Economic and non-economic loss and damage to climate change: evidence from a developing country shrimp farms to cyclone Bulbul. *Fisheries and Aquatic Sciences*, 25(4), 214–230. <https://doi.org/10.47853/fas.2022.e20>
- Jordan, J. C. (2020) Theatre making and storytelling on the margins: the lived experience of climate change in Dhaka. *RiDE: the journal of Applied Theatre and Performance*. Vol 25, 2020 – Issue 4. <https://doi.org/10.1080/13569783.2020.1791696>
- Linnerooth-Bayer, J., Surminski, S., Bouwer, L.M., Noy, I., Mechler, R. (2019). Insurance as a Response to Loss and Damage?. In: Mechler, R., Bouwer, L., Schinko, T., Surminski, S., Linnerooth-Bayer, J. (eds) *Loss and Damage from Climate Change. Climate Risk Management, Policy and Governance*. Springer, Cham. https://doi.org/10.1007/978-3-319-72026-5_21
- Lisa Schipper (2020) *Maladaptation: When Adaptation to Climate Change Goes Very Wrong One Earth*, 2020. <https://doi.org/10.1016/j.oneear.2020.09.014>
- Mace MJ, Verheyen R (2016) Loss, damage and responsibility after COP21: all options open for the Paris agreement. *RECIEL* 25(2):197–214.
- McNamara, K, Westoby, R, Clissold, R and Chandra, A (2021) Understanding and responding to climate-driven non-economic loss and damage in the Pacific Islands. *Climate Risk Management* 33 100336. Doi: 10.1016/j.crm.2021.100336
- McShane, K. (2017). Values and Harms in Loss and Damage. *Ethics, Policy & Environment*, 20(2), 129–142. <https://doi.org/10.1080/21550085.2017.1342960>
- Millennium Ecosystem Assessment (MEA) (2005) *Ecosystems and Human Wellbeing: Biodiversity Synthesis*. Island Press.
- Mechler, R. et al. (eds.) (2019) Chapter 1 Science for Loss and Damage. Findings and Propositions in Loss and Damage from Climate Change, *Climate Risk Management, Policy and Governance*, https://doi.org/10.1007/978-3-319-72026-5_1
- Morrissey, J, and Oliver-Smith, A (2013) Perspectives on non-economic loss and damage: Understanding values at risk from climate change (working paper). <https://doi.org/10.1016/j.ijdr.2020.101881>
- Oktari, R. S., Munadi, K. Idroes, R., and Sofyan, H. (2020) Knowledge management practices in disaster management: Systematic review, *International Journal of Disaster Risk Reduction*, Volume 51, 2020, 101881, ISSN 2212-4209. <https://doi.org/10.1016/j.ijdr.2020.101881>
- Palinkas, L. A., & Wong, M. (2020). Global climate change and mental health. *Current Opinion in Psychology*, 32, 12–16. <https://doi.org/10.1016/j.copsyc.2019.06.023>
- Pill, M. (2021). Re-framing non-economic losses to non-economic impacts for effective policymaking: evidence from the Caribbean. *Climate and Development*, 14(8), 770–779. <https://doi.org/10.1080/17565529.2021.1987852>
- Preston, C (2017) Challenges and Opportunities for Understanding Non-economic Loss and Damage. *Ethics, Policy & Environment* 20(2) 143–155. <https://doi.org/10.1080/21550085.2017.1342962>
- van Schie, D., Ranon, R., Mirza, A., Anderson, S. (2022) Local responses to climate related non-economic losses and damages: a case study in Burigoalini and Gabura Union, southwest Bangladesh. IIED, London. <https://www.iied.org/21161iied>
- Serdeczny, O, Waters, E and Chan, S (2016): Non-economic loss and damage in the context of climate change: understanding the challenges, Discussion Paper, No. 3/2016, ISBN 978-3-88985-682-1, Deutsches Institut für Entwicklungspolitik (DIE), Bonn
- Serdeczny, O. (2019). Non-economic Loss and Damage and the Warsaw International Mechanism. In: Mechler, R., Bouwer, L., Schinko, T., Surminski, S., Linnerooth-Bayer, J. (eds) *Loss and Damage from Climate Change. Climate Risk Management, Policy and Governance*. Springer, Cham. https://doi.org/10.1007/978-3-319-72026-5_8
- Shawoo, Z., Maltais, A., Bakhtaoui, I. and Kartha, S. (2021) Designing a fair and feasible loss and damage finance mechanism. SEI briefing paper. October, 2021. <https://www.sei.org/publications/fair-feasible-loss-and-damage-finance-mechanism/>
- Shawoo, Z. and Bakhtaoui, I. (2022) Operationalising finance for loss and damage: from principles to modalities, Stockholm Environment Institute. <https://www.sei.org/projects-and-tools/projects/operationalizing-finance-loss-damage/>
- Steadman, S., Gilmour, A., Colenbrander, S. and Watson, C. (2022) What do we have to lose? Understanding and responding to climate-induced loss and damage to cultural heritage. (www.odi.org/publications/what-do-we-have-to-lose-understanding-and-responding-to-climate-induced-loss-and-damage-to-cultural-heritage)
- Tenzing, J. and Conway, D. (2022) Climate discourses as barriers to rights-based adaptive social protection: How historical politics shape Ethiopia’s climate-smart safety net. *Global Environmental Change*, Volume 76, 2022, 102583, ISSN 0959-3780, <https://doi.org/10.1016/j.gloenvcha.2022.102583>

Thiault, L., S. D. Jupiter, J. E. Johnson, J. E. Cinner, R. M. Jarvis, S. F. Heron, J. M. Maina, N. A. Marshall, P. A. Marshall, and J. Claudet. 2021. Harnessing the potential of vulnerability assessments for managing social-ecological systems. *Ecology and Society* 26(2):1. <https://doi.org/10.5751/ES-12167-260201>

Tschakert, P., Barnett, J., Ellis, N., Lawrence, C., Tuana, N., New, M., . . . Pannell, D. (2017). Climate change and loss, as if people mattered: values, places, and experiences. *WIREs Climate Change*, 8(5). <https://doi.org/10.1002/wcc.476>

Tschakert, P., Ellis, N., Anderson, C., Kelly, A and Obeng, J (2019) One thousand ways to experience loss: A systematic analysis of climate-related intangible harm from around the world. *Global Environmental Change* 55 58–72. <https://www.sciencedirect.com/science/article/abs/pii/S0959378018308276>

Wallimann-Helmer, I., Meyer, L., Mintz-Woo, K., Schinko, T., Serdeczny, O. (2018). The Ethical Challenges in the Context of Climate Loss and Damage. In: Mechler, R., Bouwer, L., Schinko, T., Surminski, S., Linnerooth-Bayer, J. (eds) *Loss and Damage from Climate Change. Climate Risk Management, Policy and Governance*. Springer, Cham. https://doi.org/10.1007/978-3-319-72026-5_2

Westoby, R., Clissold, R., McNamara, K.E. et al. Cascading loss and loss risk multipliers amid a changing climate in the Pacific Islands. *Ambio* 51, 1239–1246 (2022). <https://doi.org/10.1007/s13280-021-01640-9>

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